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MANUAL FOR COUNTY INSTITUTES

STATE OF
NEW MEXICO
1916

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STATE BOARD OF EDUCATION

1916

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STATE OF NEW MEXICO

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SANTA FE, N. M.

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COMMITTEE ON INSTITUTE MANUAL

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New Mexico Normal School, Silver City, *Chairman.*

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State Superintendent of Public Instruction, Santa Fe, N. M.

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Aztec, N. M.

FOREWORD

THIS issue of the Manual, I consider an improvement even upon the excellent one of 1913-14. Its merit is due to the committee of the state board of education which had the preparation in charge and chiefly to the chairman of the committee, President E. L. Enloe, of the New Mexico Normal School, Silver City. Our appreciation is due the many educators of the state who have given their time and their thought to the preparation of the several outlines.

If any applicants desire to take examination in other optional branches than Algebra or Botany, the following texts are recommended: Linville and Kelly's Text Book in General Zoology, Ginn & Co.; Montgomery's Modern Bookkeeping and Business Practice, Chas. E. Merrill Co.; Carhart and Chute's Physics, Allyn & Bacon.

A change will be noted in the arrangement of material, all of the miscellaneous information and suggestions having been placed at the back of the book instead of at the front. It will be found also that the outlines in the various subjects are placed in the usual order of subjects as they occur on certificates, blanks, etc., issued by the department of education.

Very truly yours,

ALVAN N. WHITE,

State Superintendent of Public Instruction.

May 1, 1916.

READING

FIRST AND SECOND GRADES.

Prepared by Supt. W. O. Hall, Roswell, New Mexico.

(NOTE: See also "Phonetic Method of Teaching Reading," page 28.

In making the following outline in reading, especially the work relating to primary grades, I am much indebted to Miss Dorothy K. Russell for many helpful suggestions. It is the intent in this outline to emphasize those principles which seem to be the most essential in teaching reading. My only regret is that in so few lessons is there sufficient time to drill on some of the first principles in reading so that their importance may be firmly impressed upon those expecting to teach.

The following references have been consulted in the making of this outline, and are arranged in the order of their usefulness to the teachers of reading:

Briggs, Thomas H., and Coffman, Lotus D., "Reading in the Public Schools"—Row, Peterson & Co., Chicago.

Arnold, Sarah Louise, "Reading, How to Teach It"—Silver Burdette & Co., Chicago.

Patzer, Conrad E., "Modern Methods of Teaching Language, Reading and Spelling"—H. M. Dixon & Co., Chicago.

Sawyer, Nettie Alice, "Five Messages to Teachers of Primary Reading"—Rand McNally & Co., Chicago.

Haliburton, Margaret, and Smith, Agnes G., "Teaching Poetry in the Grades"—Houghton, Mifflin & Co., Chicago.

Laing, Mary E., "Reading, a Manual for Teachers"—D. C. Heath & Co., Chicago.

Clark, S. H., "How to Teach Reading in the Public Schools"—Scott, Foresman & Co., Chicago.

O'Shea, Michael Vincent, "Everyday Problems in Teaching"—Bobbs, Merrill & Co., Indianapolis.

Many suggestions were also secured from the Manual for County Institutes for New Mexico, 1913-1914.

It is not necessary that each teacher have all these books. Every teacher to do good Institute work should have the book written by Thomas H. Briggs and Lotus D. Coffman and Sear-

son & Martin's Sixth Reader. These books should be procured and studied *before coming to the Institute.* Where possible, teachers will find it to their advantage to secure other books and read them.

LESSON I.

AIMS AND METHODS IN READING.

Reading is the most important study with which the pupil has to deal in the first, and even in the later years of his school life. Laing, in her Manual for Teachers, says: "When one has learned to read and has acquired a discriminating taste in reading he is in possession of the most important feature in education that the school can possibly give. Wanting this power he is in no sense educated though he be a post-graduate student at one of the first universities." The mastery of reading puts all literature within his reach and if the pupil has mastered the art of reading he passes from the dependent to the independent stage in his education. It is therefore of vital importance that the teacher be skilled in reading methods that will enable the pupil to learn rapidly and with the least expenditure of nervous energy.

There are four things to keep in mind in teaching beginners to read,—

1. To select words familiar to the child's speaking vocabulary that will excite interest and stimulate free action and expression.
2. To so arrange the words that they can be readily used for script reproduction.
3. To establish a vocabulary that will make the child independent of the mechanics of reading and correct in thought interpretation.
4. To give the child the power to master new words.

There are several methods used to teach beginners to read, viz.—

1. The Alphabet method.
2. The Word method.
3. The Sentence method.
4. The Phonic method.
5. The Eclectic method.

1. Describe each of these methods.

2. Why is the eclectic method the best? Describe and illustrate it fully. Use the first lessons in Riverside Primer to illustrate this method.

3. Why can the phonic method when considered by itself scarcely be called a method of teaching reading?

4. Is it necessary that the pupil know the alphabet in regular order? Why? When and how would you teach the letters?

5. Make a list of words from the Riverside Primer which you would teach the beginning pupils during the first few weeks? How would you introduce these ?

LESSON II.

PHONIC AND WORD DRILL.

1. Phonics and word drill should be carried along with the reading for the first three years and in many cases longer. Why? This work should have a separate period on the program and not be put with the regular reading lesson. Why? It is of the utmost importance that phonic work and word drill should be carried on CAREFULLY, DILIGENTLY AND SLOWLY. Discuss why one should proceed slowly in taking up new sounds.

2. The first lessons in phonics should consist of ear training. Why is this true? How would you proceed in this? Discuss in full.

3. How may stories such as the one of the cow in which M represents the low of the cow be used in fixing phonic sounds in the child's mind? What use can be made of phonic cards in teaching phonics? Where can these be obtained? How can these be made by the teacher?

4. What is a phonogram? What is a blend drill? How are phonograms used? Show how a blend drill may be directed. Show how you would teach pupils to attack new words that come in the regular reading lesson.

5. Word drills. Words may be divided into two classes, the purely phonetic and the unphonetic or sight words. Make a list of a dozen of each class. In your advance work, especially in the primary grades, in a word drill, how would you attack new words? that are phonetic? How would you attack the unphonetic words?

6. How may you make word cards? What is the value of having word cards on hand? Would you continue these beyond the first year? Show which words in the first 15 pages of the Riverside Primer are sight words.

7. It is very important that the pupils should receive a great deal of word drill. Why? Have each teacher give one device for keeping alive interest in the word drill.

Briggs and Coffman—79-92.
Arnold, "Reading, How to Teach it"—65-85.

LESSON III.

ORAL READING.

1. Right breathing, clear enunciation, correct articulation, right pronunciation and using agreeable tones are habits that will aid in good oral reading.

2. Define and clearly understand each of the above.

3. How may you form and strengthen the habits indicated above? Have the teachers go thru with some good breathing exercises.

4. What is oral reading? What is the aim in this reading? Why do we emphasize oral reading in schools more than we do silent reading?

5. In order that a pupil may become a good oral reader he must acquire: (1) A clear, distinct articulation. (2) Quick recognition of words and phrases. (3) Natural expression. (4) Forgetfulness of self. What effect will phonic drill have on 1? Will it aid 1 to find out the peculiarities of your pupils' pronunciation, as leaving off the g in ing? How can you help the children to overcome defects in their pronunciation? How will you go at it to have your pupils acquire 2? How may you help to get natural expression in the first grade? In the upper grades? How may you aid the pupils to overcome lack of self confidence?

6. Discuss criticism of pupils' reading.

7. Discuss the advantage of having pupils read from the front of the room to the class. What is the advantage of having pupils close their books and listen to one of their number read? What are some of the disadvantages of each of these?

8. Discuss the proper position in reading.

9. Should a teacher read to her pupils in order to have them read well orally? Discuss.

Briggs and Coffman—149-172.
Arnold—117-137.

LESSON IV.

ORAL READING, CONTINUED.

1. What do you mean by proper phrasing in reading? The conductor may pick out a lesson in Searson and Martin's Sixth Reader and ask Institute to show what they mean? What is its place in good oral reading?

2. Discuss "Punctuation marks, and especially the comma, are not safe guides in expressive reading."

3. Discuss the effect of rapidity of reading upon expression and how it may be remedied.

4. The teaching of oral reading "can greatly be accelerated by recognizing the imitative faculty of children. Discuss. Should the teacher insist upon the pupil rendering the selection just as she rendered it? Is this a good statement to hear in the schoolroom, "Let me hear how that seems to you, John, etc"? Why?

5. Discuss the value of the old type of Friday afternoon exercises in reading, reciting and declaiming.

6. Discuss, "When a selection has been worked over in school and the pupils thoroly imbued with the spirit of it, they should be urged to read it orally at home."

7. It is a good plan for the teacher to encourage and assist the pupils to prepare and present something which is new to the class. Why?

8. What is the value of frequent reading of good selections that have been already studied?

9. What is meant by dramatic reading? Why is dramatization a valuable exercise in teaching reading in primary grades? In the upper grades?

10. Let the members of the Institute dramatize some story suitable for Second Grade work.

11. Seat work for the Primary Grade in reading. Discuss and criticise the following:—

1. Copying words.
2. Word building.
3. Sentence building.
4. Arranging words alphabetically.
5. Copying words from the board or from the reader.
6. Drawing pictures suggested by reading lesson.
7. Paper cutting and folding to illustrate the lesson.
8. Making lists of words containing the same sound.

9. Suggest other work for busy work at the seats which has a direct bearing on reading.

12. If time permits, read lesson, page 155-163, Searson and Martin's Sixth Reader, *"A Legend of Breguez."*

LESSON V.

LITERATURE.

1. What is one salient quality of good literature?

2. What does good literature do for a child?

3. Discuss, "The love of good literature is from every point of view, the most valuable equipment with which the school can send its boys and girls into the world."—*Pres. Wm. DeWitt Hyde.*

4. What is meant by pleasure reading? or reading for pleasure? When should this reading be done? How can the teacher direct this? What is its importance?

5. What should be the teacher's attitude toward this reading outside of school hours?

6. How may you teach pupils to discriminate between good and poor literature? Can you do this by giving them a lecture on good literature?

7. Pupils should be encouraged to bring newspaper clippings, magazine articles and short stories to class to read to the other pupils. What advantage is there in this? What danger? How may the evils be overcome? Suggest methods of controlling and managing this.

8. What is the place of the teacher's reading to the pupils in the teaching of literature?

9. Suggest means whereby a library may be started in a school.

10. Make out a list of five books suitable for children of each grade to read outside of school.

11. What is the basis of appreciation of good literature?

Briggs and Coffman—pp. 187-188, 190-191, 229-ff, 318-328.
Arnold—25-43.

LESSON VI.

SILENT READING.

1. Why do people in ordinary life read? What per cent of

the time is spent in reading orally? Is it important to learn to read silently as well as orally?

2. Name the bad habits in silent reading. Discuss and develop the remedies.

3. Discuss the advisability of asking a whole grade to read silently a paragraph, a page or unit of thought and when through to close their books and discuss the content.

4. Show how this method might be used in teaching lesson, page 34 in Searson and Martin's Sixth Reader.

5. Discuss methods of getting silent reading done outside of class. How may you be sure that they have gotten something out of this reading? What danger is there in inquiring too closely into what has been gained from reading a book outside of class?

6. Why do people emphasize oral reading in the school rather than silent reading?

7. In what other classes can you get silent reading besides in the Reading Class?

8. What economy is there in silent reading?

Briggs and Coffman—16, 62-69, 264-267, 55.

LESSON VII.

USE OF DICTIONARY.

1. What things may be found in the dictionary that would aid in reading?

2. When should children be asked to use the dictionary?

3. Should children be allowed to use the dictionary before the fifth grade without the aid of the teacher?

4. Discuss this statement: "Never tell a pupil anything he can find out from the dictionary."

5. Is there any value in having the pupils hunt up lists of words and learn their meaning? Why is it better to have them look up words found in the Reading Lesson?

6. Is it a good procedure to have the pupils use a word they have looked up in a sentence? If so, why?

Briggs and Coffman—173-185.

O'Shea's "Everyday Problems in Teaching"—pp. 236-248.

The latter reference should be read by every Institute instructor and by as many teachers as possible. All teachers should possess and be familiar with Briggs and Coffman's "Reading in the Public Schools."

LESSON VIII.

MISCELLANEOUS.

1. What is meant by mechanics of reading?
2. What is meant by time, force, melody, accent, stress, inflection, tone, pitch, and quality? Explain and illustrate each of these.
3. How may criticism aid in reading? How injure?
4. The place of questions in literature. What difference would you make in a question asked a fifth grade and an eighth grade pupil?
5. What kind of questions may be asked to the best advantage in arousing appreciation of literature?
6. What use may be made of synopses in reading?
7. Make out four questions you would ask in a class recitation on Searson and Martin's Sixth Reader, page 207.
8. How should the questions placed after each selection in Searson and Martin's Sixth Reader be used? Illustrate by lesson on page 207.
9. How should the introductory part of each lesson be used?
10. Dramatics in the upper grades. How used? Value of?

Briggs and Coffman—270-272, 58, 234-238.

LESSON IX.

ASSIGNMENT.

1. What are the purposes of an assignment?
2. What are the elements of a good assignment?
3. How may one test the value of an assignment?
4. Discuss this statement by a teacher: "I haven't time for an assignment, except to say, 'take the next lesson.' I have twenty-eight classes to hear."
5. What are the advantages of an assignment? When should the assignment be made? How may introductory statements and questions in Searson and Martin's aid in assignment?
6. I am firmly of the opinion that the assignment is just as important as the hearing of the recitation, and a teacher's success will, in a large measure, depend upon her ability to assign a lesson. The assignment determines, in a large measure, the incentive the pupil will have for getting the next day's lesson.
7. The Institute conductor may show the teacher what is

meant by a good assignment by taking some lesson and making an assignment to the class. Take, for example, Lincoln's "Gettysburg Address." The assignment may be made according to this outline:—1. Brief sketch of conditions at this time. 2. Map showing locations. 3. Reasons for dedication. 4. Words and phrases which they should think of and explain. 5. One or two questions which they should try to answer from their reading.

Briggs and Coffman—276 to 288.

LESSON X.

POETRY AND PICTURES IN READING.

1. Discuss the teaching of poetry under this general method:
   a. Preparation.
   b. The Whole.
   c. The Parts.
   d. The New Whole.
2. Apply this method by showing how you would teach "In School Days," Searson and Martin's Sixth Reader, page 100.
3. Before a teacher begins to teach a piece of poetry to be memorized by the children she should first memorize it herself. Why? Why memorize literature?
4. Pictures in Reading.
   a. Discuss.
      1. Mental pictures in reading.
      2. Use of pictures in primary reading.
      3. Look through the present series of Reading Books and criticise the pictures used. This may be favorable or unfavorable.
      4. Pupils illustrating the text.
5. Mention poems suitable to each grade in the school.
6. Have teacher prepare and assign lesson on page 121 in Searson and Martin's Sixth Reader.

Briggs and Coffman—111-139.
Haliburton and Smith, "Teaching of Poetry in the Grades"—1-18, 69-74.

READING

THIRD GRADE.

Prepared by Supt. W. O. Hall, Roswell, New Mexico.

(NOTE: See "Phonetic Method of Teaching Reading," p. 28.)

In making the following outline in reading, especially work relating to the primary grades, I am much indebted to Miss Dorothy K. Russell for many helpful suggestions. It is the intent in this outline to emphasize those principles which seem to be most essential in teaching reading. My only regret is, that in so few lessons, is there sufficient time to drill on some of the first principles in reading so that their importance may be firmly impressed upon those expecting to teach.

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LESSON I.

THE CHILD'S PREPARATION WHEN HE COMES TO SCHOOL.

1. Upon what does the child's mental equipment for school depend?

2. The best authorities estimate that a child of six years is able to use from six to eight hundred words when he comes to school. This is his speaking vocabulary. His hearing vocabulary is from two to four thousand words—that is, he is able to understand these when he hears them.

3. What were the processes by which "the hearing and speaking vocabularies were obtained"? Can you use these in your school room?

4. The reading should be based on the experiences of the child. How can you find out what these experiences are? How may his reading be based upon these experiences? How would it do to start with the industries of the child's parents, or his pets?

5. How is it possible to base the reading on the child's experiences and at the same time prepare him to do the reading found in the primer?

6. The first six or eight weeks with children who are beginning to learn to read should be spent in teaching them from the blackboard and the work should, as far as possible, be connected up with the child's experiences and at the same time should be a basis for the reading from the book. Should this work be put on the board in print or script? How should the change from one to the other be made?

7. Criticise the present primer in regard to whether the subject matter is related to the average child's experience.

8. New words should not be introduced too rapidly and the old ones should be frequently repeated by word drill and by reading them in sentences. How may this be done?

LESSON II.

IMPORTANCE, AIMS AND METHODS IN READING.

1. Reading is the most important study with which the pupil has to deal in the first, and even later years of his life. Laing, in her "Reading, A Manual for Teachers," says: "When one has learned to read and has acquired a discriminating taste in reading, he is in possession of the most important feature in education that a school can possibly give. Wanting this power to read he is in

no sense educated though he be a post-graduate student at one of our first universities." The mastery of reading puts all literature within his reach and if the pupil has mastered the art of reading he passes from the dependent to the independent stage of learning. It is of vital importance, therefore, that the teacher be skilled in methods that will enable the pupil to learn rapidly and with the least expenditure of nervous energy.

2. The purposes in reading are three-fold—

"To help children in acquiring power to get thought from the printed page, to the end that they may draw on the wisdom of the ages as stored in books."

"To help the children form the habit of reading good literature."

"To help children acquire power to render thought, feeling and emotion in an expressive way."—Patzer, *"Modern Methods."*

3. There are four things to be kept in mind in teaching beginners to read:—

a. To select words familiar to the child's speaking vocabulary which will excite interest and stimulate free action and expression.

b. To so arrange words that they can be readily used for script reproduction.

c. To establish a vocabulary that will make the child independent in the mechanics of reading and correct thought interpretation.

d. To give the child the power to master new words.

4. There are several methods that can be used to teach beginners to read, viz:—

a. The alphabet method.

b. The word method.

c. The sentence method.

d. The phonic method.

e. The eclectic or combination method.

5. Describe each of these methods. Why is the alphabet method the poorest? Why do you consider the eclectic method the best?

6. Discuss and describe the best method in detail.

7. Why can not the phonic method, when taken alone, be considered a method in reading?

Briggs and Coffman—pp. 40-47.

LESSON III.

METHODS IN READING.

1. Is it necessary that the pupils know the alphabet in the regular order? Why? When should the alphabet be taught and how?

2. Make a list of words, from the Riverside Primer, that you would teach the pupil during the first few weeks. How would you introduce these? Would the list vary in different localities? Give reasons for your answer.

3. The Institute Conductor will have the teachers show how they would teach the lesson on page 5 of the Blodgett Primer. What work would the children have to do before they tried to read this lesson?

4. Review fully the uses to be made of the blackboard in the first weeks in teaching beginners to read. What use would you make of the primer during the first week in reading?

5. Explain the use to be made of the reading chart. In case there is none in the school what could you do?

6. What do you mean by sight words? By phonetic words? Show how you would teach each of these.

Arnold—pp. 45-85.

LESSON IV.

PHONICS AND WORD DRILL.

1. Another line of work to be carried on during the first years of school is the work in phonics and word drill. This should have a special period of its own on the program and not be confused with the reading proper. It is one of the utmost importance and should be carried on *carefully, diligently and slowly.*

The first lessons in phonics should consist of ear training.

The first sounds may be given by means of stories, as the the low of a cow represents the "M" sound.

Another very important element in the phonic work is the blend drill.

Besides the drill on phonetic words there is the drill on the purely sight words.

2. Why should phonics be introduced in the first grade? At what time should they be introduced in this grade?

3. What is the relation of phonics to reading? Why should

it have a separate place on the program? How may you teach a pupil to use his phonics to work out new phonetic words?

4. It is not good to have the young children try to sound out the so-called unphonetic words, as tongue, beautiful, etc. Why not?

5. How would you go about getting your pupils to compare words? Is poor hearing sometimes the cause of indistinct articulation or careless pronunciation. Why?

6. When should diacritical marks be used?

7. Cards should be made and kept for drill on the sight words and upon some of the phonetic words. How may these cards be made? Show what words you would put on these cards from the first ten pages of the Riverside Primer. Give devices for the word drill.

Arnold—pp. 68-85.

LESSON V.

PHONICS AND THE USE OF THE DICTIONARY.

1. What do you mean by a blend drill? Give devices for such a drill.

2. What do you mean by ear training in reading? Show how this may be carried on in the class room.

3. The Dictionary. When should the use of the Dictionary be begun.

4. Explain how you would proceed to teach the children each of the following steps in dictionary work, and give the difficulties one usually encounters:—

a. Learning the alphabet.
b. Diacritical markings.
c. Sounds of letters.
d. Accent.
e. Syllabication.
f. Meaning.

5. Is there any value in having pupils hunt up lists of words and learn the meaning? Why is it better to have them look up words found in the reading lesson and apply their definitions to the lesson in hand?

Briggs and Coffman—pp. 173-185.

O'Shea, "Everyday Problems in Teaching."

The latter reference is more especially meant for Institute

Conductors, but it will prove valuable to any one who has access to the book to read.

LESSON VI.

HABITS THAT ARE FACTORS IN GOOD ORAL READING.

1. Right breathing, clear enunciation, correct articulation, right pronunciation, and using agreeable tones.

2. Define and clearly understand the above.

3. How may you form and strengthen the habits indicated above?

4. What part will imitation play in securing these habits, and especially the agreeableness of tone?

5. What is the use of tongue twisters, as:

"Around the rock the ragged rascal ran"?

"Six slim, sleek, slick saplings"?

6. What are some of the common faults in oral reading? How may these be remedied?

7. Suggest methods of getting pupils to do more oral reading than there is time for in the regular recitation period.

8. Discuss—In the lower grade you might ask to read aloud at home the lesson read in class during the day.

9. Discuss the advantage of having pupils read from the front of the room to the class. What is the advantage of having the pupils close their books and listen to one of their classmates read?

10. Discuss the position in reading.

Briggs and Coffman—pp. 149-172.

LESSON VII.

ORAL READING, CONTINUED.

1. What is the aim of oral reading?

2. In order to be a good oral reader the pupil must acquire 1st—A clear, distinct articulation; 2nd—Quick recognition of words and phrases; 3rd—Natural expression, which may be obtained by an understanding of the thought and feeling expressed by the author; 4th—Forgetfulness of self.

3. Discuss each of the above.

4. How may you aid the first grade to get natural expression? The other grades?

5. How may you aid the pupil in the first grade to get self confidence? A fifth grade pupil? An eighth grade pupil?

6. Read lesson on page 155 of Searson and Martin's Sixth Reader, *"A Legend of Breguez."*

Briggs and Coffman—91-172.
Arnold—pp. 117-137.

LESSON VIII.

DRAMATIZATION AND SEAT WORK.

1. What is meant by dramatic reading? Show how dramatization is a valuable exercise in teaching pupils in all grades to read well.

2. Dramatize a story suitable to the second grade. The fourth grade. The seventh grade.

3. Seat work in reading. Discuss, criticise, and determine the grade in which these can be used:—

a. Copying words.
b. Word building.
c. Sentence building.
d. Arranging words alphabetically.
e. Copying sentences from the board or from the book.
f. Drawing pictures suggested by the reading lesson.
g. Paper cutting and folding to illustrate the lesson.
h. Making lists of words containing the same sounds.
i. Writing synopses.
j. Making out questions covering the points in the lesson.
k. Writing explanations to certain sentences or phrases.
l. Suggest other work for seat work.

LESSON IX.

SILENT READING.

1. Why do people in ordinary life read? What per cent of the time is spent reading orally? Is it important to learn to read silently?

2. Name the bad habits of silent reading. Discuss and develop remedies.

3. Discuss the advisability of asking the whole class to read

silently a paragraph, a page, or unit of thought and when through close their books and discuss the content.

4. Is it important to teach pupils to get the thought from a printed page rapidly? How may this be done?

5. Show how this method may be used in teaching the lesson on page 25 of Searson and Martin's Sixth Reader, *"The Whistle."*

LESSON X.

SILENT READING, CONTINUED.

1. Discuss methods of getting silent reading done outside of the class. How may you be sure that the pupil has gotten something out of this reading? What danger is there in inquiring too closely into what has been gained from reading a book outside of class?

2. Why do people emphasize oral reading in school more than they do silent reading?

3. In what other class can you get silent reading besides the reading class? How may you feel sure that it is well done and that the pupils are not getting habits that you are trying to break up in the regular reading lesson?

4. Read and discuss the chapter on the use of libraries in Arnold's "Reading, How to Teach It."

Briggs and Coffman—pp. 62-69, 264-267, and 55.

LESSON XI.

LITERATURE.

1. What is one salient quality of literature?

2. What does good literature do for a child?

3. Discuss—"The love of good literature is, from every point of view, the most valuable equipment with which the school can send its boys and girls into the world."—*Pres. Wm. DeWitt Hyde.*

4. What is meant by pleasure reading? When should this reading be done? How can the teacher direct this? What is its importance?

5. What should be the teacher's attitude towards reading outside of school hours?

6. How may you teach children to discriminate between

good and poor literature? Can you do this by giving a lecture on good literature?

7. Pupils should be encouraged to bring newspaper clippings, magazine articles and short stories to class to read to the other pupils. What advantage is there in this? What danger? How may the evils be overcome? How may this work be managed?

8. What is the place of the teacher reading to the pupils in the teaching of literature?

Briggs and Coffman—pp. 187-188, 190-191, 229 ff, 318-328.
Arnold—pp. 25-43.

LESSON XII.

1. Make a list of books suitable for reading outside of class in each grade, beginning with the first.

2. Suggest means whereby a library of good books may be secured in the district where you live.

3. Should pupils be encouraged to start a library of their own? How would you go about this?

4. What is the basis of appreciation of good literature?

5. What do you mean by supplementary reading? How should this be conducted? Would you have a word drill in these lessons?

6. Show how you would treat *"The Young Witness,"* on page 6 of Searson and Martin's Sixth Reader, using it as a supplementary reading lesson.

See references for preceding lesson.

LESSON XIII.

ASSIGNMENTS.

1. What are the purposes of the assignment?

2. What are the elements of a good assignment?

3. How may one test the value of an assignment?

4. Discuss this statement made by a teacher: "I have not time for an assignment, except to say, 'take the next lesson.' I have twenty-eight classes to hear each day."

5. What are the advantages of the assignment? When should the assignment be made?

6. I am firmly of the opinion that the assignment is just as important as the hearing of the recitation and a teacher's success

will, in a large measure, depend upon her ability to assign a lesson. The assignment determines, in a large measure, the incentive the pupil will have for getting the next day's lesson.

LESSON XIV.

1. Have the teachers prepare and show what they mean by an assignment by taking some lesson and making an assignment for the class. Take for an example, *"Lincoln's Gettysburg Address."* The assignment may be made according to the following outline:—

(1) Brief sketch of conditions at this time, either from the teacher or from questions to the pupils.
(2) Map showing locations.
(3) Occasion.
(4) Words and phrases which the pupil should think of and explain.
(5) One or two questions to which the pupils will try and find the answer by reading the lesson. These questions will give direction to the reading.

2. Show how the questions at the end of this selection may be used. What are some of the disadvantages and dangers of these questions?

3. How may the introductory part of each lesson be used?

LESSON XV.

MISCELLANEOUS.

1. What is meant by mechanics in reading?

2. What is meant by time, force, melody, accent, stress, inflection, tone, pitch and quality? Explain and illustrate each.

3. How may criticism aid in reading? How injure?

4. What is the place of questions in literature? What difference in a question asked a fifth grader and an eighth grader?

5. What kind of questions may be used to the best of advantage in arousing an appreciation of literature?

6. Make out four questions that you would ask a class in a recitation on lesson in Searson and Martin's Sixth Reader, page 207.

7. What use may be made of synopses in reading?

8. Dramatics in the upper grades. How used? Value of?

Briggs and Coffman—pp. 270-272, 58, 234-238.

LESSON XVI.

1. "The pedagogical movement in the study of a selection may be stated as follows:—

1. Aim.
2. Preparation for the new lesson.
3. Securing the thought content.
4. Expressive reading of the selection.
5. Reproduction of what is read."

—*C. E. Patzer.*

2. Enlarge upon the above.

3. Teach the lesson on page 106 of Searson and Martin's Sixth Reader according to this.

LESSON XVII.

PUNCTUATION AND ESSENTIAL ELEMENTS.

(*Copied from the* 1913-1914 *Manual*)

1. What is the function of punctuation marks? Make and illustrate the use of each mark.

2. Explain—"Every passage has a double set of punctuation marks; one visible, the other invisible; one is the printer's work, the other is the reader's."

3. There are four essential elements of vocal expression, viz., time, pitch, quality and force.

4. Time refers to the rate of vocal movement, and has to do with the extent of the thought.

5. What is the cause of a child's reading too rapidly? Too slowly? What is the remedy when children read everything at about the same rate?

6-7. Interpret, as to time, the following:—

> "Not a drum was heard, not a funeral note, as his corpse to the ramparts we hurried."
>
> "Nice clothes I get, too, traipsing thru the weather like this! My gown and bonnet will be spoiled. Need-n't I wear 'em then? Indeed, Mr. Caudle, I shall wear 'em. No, sir! I am not going out a dowdy to please you or anybody else!"

8. Do you have reading matches? How do you conduct them? What is the gain to the pupil?

9. What causes a pupil to hold on to words? How remedy it?

10. How may reading in a monotone be corrected? What causes this?

LESSON XVIII.

1. Have the Institute prepared to read two of the following selections from Searson and Martin's Sixth Reader, noting the inflection, enunciation, pronunciation and interpretation of each reader:

"The Old Oaken Bucket."
"The School Days."
"The Brook."
"The Man Without a Country."

2. Have the class make out five questions on each story that they would give to a sixth grade.

3. Discuss—"It is wise at times to have pupils prepare questions on the advance lesson which they will ask members of the class to answer."

4. Drill on the pronunciation of these words:—get, catch, singing, (make a list of other words ending in ing so as to call the attention to any who may be inclined to omit the ing, though it ought to be pronounced), just, many, often, again, why, June, geography, algebra and literature.

LESSON XIX.

MISCELLANEOUS AND REVIEW.

1. Define: articulation, enunciation, syllable, phonogram, inflection, stress and accent.

2. Name the chief errors in teaching inflection.

3. How should inflection marks be taught? Drill on inflection as applied to interrogation, denial, affirmation and sarcasm.

4. How shall expression be corrected? Discuss voice defects.

5. How may you aid the stammerer?

6. How may you aid the pupil who lisps?

7. How much time in a fifth grade should be spent on securing the thought or content of the lesson?

8. Is it good practice to always have the pupils tell the lesson before starting to read?

LESSON XX.

REVIEW AND MISCELLANEOUS.

1. Show how you would proceed to teach the poem *"Little Boy Blue."*
2. Review devices for word drill.
3. What are the aims in reading?
4. Discuss literature.
5. Review means for securing the desired end in silent reading.
6. Review methods of teaching oral reading.
7. Would you make any difference in the method used in teaching a child who did not understand English thoroughly, to one who did?

PHONETIC METHOD OF TEACHING READING.

NOTES: This outline is based upon the books and material adopted by the state—The Beacon Primer, Readers and Charts.

Each school should be equipped with a set of the charts. The primer and readers should be in the hands of the children.

For Institute work the publishers will furnish to Institute Instructors or to teachers, free of charge, copies of the charts in miniature. These are useful and convenient.

About 85% of the words of the English language are phonetic—that is, they are pronounced in accordance with a few simple rules. Thus a child taught to read by a good phonetic method is given a key that unlocks this large proportion of the words he uses and, so far as they are concerned, he becomes independent of the teacher. This gives him a power to master new words with an independent ease that is most valuable. This method also improves his articulation and enunciation and is especially helpful to children of non-English-speaking parentage.

The best way to help teachers to put the "Beacon Method" into use is for the instructor to organize a model class of children and demonstrate with it exactly how to begin and carry on the phonetic work, conducting a round table discussion after each demonstration.

LESSON I.

1. Discuss the advantages of keeping separated the phonetic work and the reading work in beginning classes.

2. Discuss the importance of correct sounding of letters, syllables and words.

3. Analyze words to get correct sounds of letters as explained on page 1 of the Phonetic Chart.

4. Drill on the correct sounding of letters until perfection is gained.

5. Show how sounds may be taught to children and devices for drill on them.

LESSON II.

1. Discuss the first presentation of sounds to children, explain the value of the suggested stories used in presenting them and learn some of the stories.

2. Discuss "blending."

3. Show the superiority of the "Beacon Method's" helpers as compared with the families of the older methods.

4. Drill on the correct formation and pronunciation of helpers as given in the "Phonetic Chart."

5. Show how words are formed from helpers, learning to do this correctly and to present it to the children properly.

LESSON III.

1. Discuss the value of simple games as a help in word and sound drills and become acquainted with such games, using perception and letter cards of the "Beacon Method."

2. Show the greater relative importance of the short sounds of the vowels as compared with the long sounds.

3. Explain why the short sounds of the vowels are presented first and emphasized most strongly.

4. Explain how to present the long sounds of the vowels as given on page 17 of the "Phonetic Chart."

5. Discuss the absence of diacritical marks in the "Beacon Method."

LESSON IV.

1. Discuss the use of the Beacon Reading Chart, Perception Cards, Word Builders, and Primer and show their relation to the Phonetic Chart.

2. Discuss the use of the phonetic tables in the Primer and Readers.

3. Explain the advantages of delaying the use of script.

4. Discuss the application of the child's newly acquired phonetic power to the reading lesson as given on pp. 34 and 35 of the Primer.

5. Discuss the relation of the First Reader to the Primer, showing how and when it should be used.

LESSON V.

1. Give a drill in conducting a class in first presentation of Beacon material, using model class or play class composed of the teachers themselves.

LESSON VI.

1. Continue drill as in Lesson V.

PENMANSHIP

FIRST, SECOND AND THIRD GRADES.

Prepared by C. P. Zaner, Columbus, Ohio.

Use the Zaner Method of Writing; Rural Manual, Manual Three or Manual Four may be used.

SUCCESS IN WRITING

depends upon mental perception and manual performance. To *think* good writing is the prelude to *acting* good writing.

Study form carefully and unconsciously the hand will endeavor to record the perception.

The manual part of writing is more complex than the percept part and as a consequence the mechanics of execution need emphasis.

The posture of the body, the position of the arm, hand and pen, the location and angle of the paper are all vital to success.

Performance or movement depends more upon position than upon any other one thing, therefore the necessity of knowing and practicing a good position.

Good writing is easy to write and easy to read. It is therefore a combination of *form* and *movement.* Distinct turns and angles make for plainness and arm movement makes for ease, grace and rapidity.

Zaner Method Writing is a fusion of form with freedom, with the emphasis upon plainness and ease, rather than upon style or peculiarity.

The lessons are planned upon Exercises for *freedom,* Letter-forms for *plainness,* and Words and Sentences for *application.* This three-fold division or feature or plan is necessary for success and each needs about equal attention. At first exercises need to be given the most time but toward the end, sentences need to be practiced more than exercises.

This Outline is intended to cover twelve lesson periods of from 40 to 60 minutes each, and upwards of 100 minutes practice between lesson periods.

Either the advanced part of the Zaner Method Rural Manual,

Manual No. 3 or Manual No. 4 may be used, whichever the pupil-teacher may have.

Position must be secured and maintained, the correct *rate of speed* by counting must be established, and the *arm movement* must be employed, if the fullest measure of progress is desired.

Good Materials, such as pens, holder, paper and ink, are necessary. A few cents may be the cause of discouragement through the use of inferior materials.

LESSON ONE.

The Fourth and Fifth Weeks' outlines in the Manuals mentioned (Rural or Nos. 3 or 4) constitute the material for study and practice for Lesson One and for assignment or home work before Lesson Two is attempted.

Either cover both weeks' assignments in the lesson period and review all before the next lesson, or drill the entire period on the Fourth Week and assign the Fifth Week for home practice.

Make sure of correct position, and refer to and drill from the Drill Plate exercises as directed from time to time in the manual. These exercises are to Writing what the scale is to music. Need we say more?

LESSON TWO.

The Sixth and Seventh Weeks' assignments in the Manuals provide instructions and copies for Lesson Two.

Lose as little time as possible in getting to work and then practice and study, count and criticise, suggest and illustrate from time to time so as to make the time pass quickly and insure improvement.

The copies in the Rural Manual and Manual 3 are larger than in Manual 4 but are similar, therefore, all three may be used by different pupils in the same Institute.

LESSON THREE.

The Eighth and Ninth Weeks' outlines of the Manuals are given for Lesson Three. Make good use of the Drill Plates now. Keep hands from resting on the side. Right habits rather than fine writing are now necessary. Use a free arm movement in all practice and apply the same to all writing at your earliest opportunity.

LESSON FOUR.

The Tenth and Eleventh Weeks' assignments in the Manuals,

giving drills upon *B* and *R* and *b* and *r*, are intended for Lesson Four.

Make sure that positions are right, that forms are studied, and that exercises are practiced at the correct rate of speed.

Cultivate a light touch of the pen to the paper.

LESSON FIVE.

The Thirteenth and Fourteenth Weeks' outlines are suggested for Lesson Five. Each lesson, therefore, averages two capitals and two small letters, besides preliminary exercises and applied practice in the form of sentences.

Read the text as well as study and practice the copies. It takes both head and hand work to win. A good handwriting is a growth and acquisition combined. It takes time and concentrated effort.

Each lesson is a stepping-stone to the next.

LESSON SIX.

The Fifteenth and Sixteenth Weeks' are suggested for Lesson Six. The letters are among the easiest to acquire. Make sure of rounding turns and sharp angles and at a lively rate of speed.

Cultivate the art of counting at the correct rate of speed—a trifle faster than slower than suggested in the manuals.

LESSON SEVEN.

The Seventeenth and Eighteenth Weeks are provided for Lesson Seven. These letters are rounding at the bottom instead of at the top, and the capitals are but enlarged and slightly modified small letters; thus the one helps the other.

Strive for grace rather than accuracy of form. Make sure of plainness and freedom.

Considerable practice needs to be done outside of the lesson period.

LESSON EIGHT.

The material given for the Nineteenth and Twentieth Weeks is well suited for Lesson Eight. Study form and practice movement. Think and act good writing. Blackboard practice aids; improve it. Count rythmically. Learn to criticise constructively.

LESSON NINE.

The material for Weeks Twenty-one and Twenty-two is selected for Lesson Nine. The writing *act* is more important at this

time than writing as an *art*. The *writing* qualities are important in order that the *reading* qualities may be desirable.

Study the Manuals carefully.

LESSON TEN.

The work for the Twenty-fourth and Twenty-fifth Weeks is suggested for Lesson Ten. As has doubtless been observed, letters are presented in familiar or family groups. This leads to comparison and co-operation, the one aiding the other. For instance: The small *z* begins the same as *n* and ends the same as *y*. Then, too, the small *z* ends the same as the capital *Z*.

Watch endings closely.

LESSON ELEVEN.

The Twenty-sixth and Twenty-seventh Weeks comprise Lesson Eleven.

Make sure to practice quite as much upon words and sentences as upon exercises and letters.

See to it that materials and position are good.

Practice with your mind on what you are doing.

LESSON TWELVE.

The Twenty-eighth and Twenty-ninth Weeks finish the twelve Lesson course.

Compare the touch, the freedom, the ease, the grace, and the form with your first efforts. Now strengthen the weak places.

These lessons have aimed to *start* you on the road to good writing, not to complete your work nor to end your progress.

Skill is necessary in manual arts to show, to convince, to instruct, to inspire.

The author and publishers of The Zaner Method of Writing will be pleased to examine the final specimens of all who pursue this course of lessons, either in Institute or individually, and to award Certificates whenever the specimens show sufficient skill to warrant special recognition.

Certificates cost fifty cents but no money should be sent until the writing has been approved by the publishers.

Progress and success are assured to all who follow the lessons intelligently and skilfully.

Good writing is an evidence of efficiency, and that is why, other things being equal, the one who writes well will always be considered before the one who writes poorly.

DAILY SUGGESTIVE QUESTIONS FOR THE TEACHER TO CONSIDER.

Discuss three or four of the following questions each day along with the work outlined in each lesson:

1. What is the correct position of paper on the desk for writing? (a) Location; (b) Angle; (c) Shifting.
2. Discuss the essentials of position:
   (a) The body.
   (b) The arms.
   (c) The hand.
3. Discuss the length of the writing period.
4. Discuss the best time of day for the writing lesson.
5. What is the plan of the Zaner system with reference to the number of books and the grades in which they are to be used for the rural schools? For the city schools?
6. What materials would you recommend for teaching penmanship in the first grade?
7. Discuss the importance of good blackboard work on the part of the teachers.
8. Why should pupils be taught to write upon the blackboard along with practicing upon paper?
9. How should pupils stand while writing on the blackboard; how hold the eraser; how hold the chalk?
10. At approximately what rate of speed should the oval and straight line exercises be practiced in the first grade; in the upper grades?
11. What movement exercises would you give in developing capital letter "O" and capital letter "A"?
12. What movement exercises would you give in developing capital letter "P" and capital letter "J"?
13. In what classes other than the penmanship class can this subject be taught?
14. Discuss correlation of writing with other subjects.
15. Using the members of the Institute as a class, have the student-teacher conduct a model lesson in penmanship.
16. What is the advantage of keeping a specimen of the writing from each pupil at the beginning or at the end of each month?

17. What capital letters have the oval as a basis for form?

18. What exercises would you give in teaching small letters "m" and "n"?

19. What plan would you use in the first and second grades in helping pupils to get the motion and direction used in making the different letter forms?

20. As a specimen of your penmanship, write a line of the direct compact oval two spaces tall, and the following sentence:

"This is a specimen of my best penmanship."

ORTHOGRAPHY

FIRST AND SECOND GRADES.

Prepared by Mrs. Nora Brumback, Santa Fe, N. M.

References: Reed's Word Lessons, New World Speller, Common Sense Spelling Book, Champion Spelling Book, Word Studies, Bailey-Manly Spelling Books and the 1915 Institute Manual.

LESSON I.

SPEECH.

Is speech in the little child natural or artificial? Give reasons for your answer.

Name the tone organ; the articulation organ; the three factors of speech. When the brain fails to bring these factors of speech into harmonious working order, what disorder follows? What is its per cent in individual schools? Is it equally frequent with boys and girls? With the Spanish and English?

What is stammering? Lisping? Give the cause of each. Is it the duty of the teacher to correct these? How?

Drill Exercises: For making the lips facile; for making the tongue flexible; for opening the mouth; for correcting nasal and head tones. Give and practice good breathing exercises.

The spelling teacher more than any other is responsible for the life of the English language. *Shall it die?*

Answer and discuss. Give the healing remedy.

LESSON II.

SOUNDS.

Give the symbol and a key word for the following vocals:

a: long, short, medial, Italian, circumflex, modified long, obscured medial.
e: long, modified long, short, tilde.
i: long, short.
o: long, modified long, short, medial, broad.
oo: long, short.
u: long, modified long, short, circumflex.
ou:
oi:

Give symbol and key word for the following substitutes: *e* for long *a*; *e* for circumflex *a*; *i* and *ee* for long *e*; *a, i,* and *o* for tilde *e*; *y* for long *i*; *y* for short *i*; *a* for short *o*; *a, au* and *aw* for broad *a*; *o, u* and *ew for long oo*; *o, u* for short *oo*; *ew* for long *u*; *o* for short *u*; *e, i* and *o* for circumflex *u*; *ow* for *ou*; *oy* for *oi*.

Give symbol and key word for the following:

Subvocals.	*Substitute.*	*Aspirates.*	*Substitute.*
b		p	
d		t	ed
d		t	
g		k	c, ck, q
h		ch	tch
j	g, dg		
l			
m			
n	ng		
n			
r			
th		th	
v		f	ph, gh
w	u	wh	
x	gz, gs	x	ks, cs, cks
y	i		
z	s	s	c
z (h)	si	sh	ch, ce, ci si, ti

N. B.—After the Institute pupils have carefully worked out the above charts and they have been verified by Webster's New International Dictionary, they should be posted in a convenient place for daily reference.

LESSON III.

DEFINITIONS.

Define: word, letter, syllable, sound, vowel, consonant, homonym, antonym, synonym, vocals, subvocals, aspirates, phonograms, phonics.

What is spelling? What is meant by an alphabet? by a suffix, a prefix, an affix?

LESSON IV.

METHODS.

Grades one, two and three.

Proceed slowly; strengthen but do not leave weak spots.

When the child realizes that the words he has learned to read are made up of letters and has learned the ordinary sound values of these letters it is time to take spelling as a distinct subject. This is usually the last part of the first years.

Training *how* to study spelling: time devoted to spelling *must* be used by teacher and pupil together. During first and second year do not assign lessons for independent study. In presenting words and drilling make it bright and full of interest. Build words and sentences with available material (Institute name some easily obtained); look at the letters of a word then close the eyes; underline with colored crayon difficult combinations; build from a common phonogram. Suggest other interesting ways.

Phonetic words form the sensible beginning for spelling. Write a dictionary list of fifty phonetic words for use in a first grade class. Give examples of unphonetic words. Keep for future use.

How should the names of letters be taught? The phonic group? The syllable sense? Vowel combinations? How to use directions? Give class illustrations. *Do not attempt to teach spelling incidentally.*

LESSON V.

DEVICES, DRILLS, REVIEWS.

"The smallest word has some unguarded spot,
And danger lurks in *i* without a dot."

Take *c* out of *once* and what word have you?

Notice how easily *clothes* is made from *cloth.*

What are the two short words in *forget?* Contrast the meanings.

Final *e* converts a short vowel into a long one. Illustrate.

Find ten words in which *n* is pronounced *ng,* beginning with the hands and feet.

The follow-up process is an effective review. Note all misspelled words in written work and bring forward in daily use. Use a Blunder List.

Secure vocabulary of school environments. Submit lists for correction.

What words do you use in speaking of the national game? Write twenty-five words that a visit to the corner grocery suggested to you.

Associate *piece* with *pie, ear* with *hear, eat* with *meat, where* and *there* with *here, vegetable* with *table,* and the child will never forget them. Suggest others.

Have plenty of oral spelling. Make it interesting. Do not pronounce a misspelled word to the next pupil, but let the class "catch it. Have turning down, passing the head, pronouncing contests, action exercises, word hunts and word writing races. Demonstrate each. Aim at correct syllabication, enunciation and *use.*

LESSONS VI AND X.

The way to learn to spell is to practice spelling.

WEEK-END SPELLING CONTEST.

absence	baptism	chanced	ditch	faucet
actual	basin	charcoal	doubt	favorite
address	beaver	charmed	dredges	fetch
adult	begrudge	chorus	dried	finery
affair	behavior	cinnamon	drooped	fireplace
afternoon	billion	circuit	dropped	firkin
agreeable	bluing	cleanse	drowsy	fixture
alcohol	bomb	climax	dwarf	flavor
almond	boundary	comic	dyeing	flicker
almost	bouquet	conceit	energy	florist
American	brakeman	concern	essay	forfeit
anchor	bruise	contrary	examine	fortune
anxious	buffalo	courage	example	fragrant
appetite	burrow	court	excursion	freckle
artery	business	crack	exhaust	frightened
asphalt	calico	cuddle	exhibition	frigid
athletic	cambric	curious	expense	fulfill
attention	Canadian	currant	explode	furnish
attic	capital	declare	factory	gambol
attractive	carnation	diary	falsehood	garbage
axle	caterpillar	disappoint	familiar	garment
baggage	cereals	disease	famous	genial
bargain	chairman	display	fashion	geography

giggle
gleam
glimpse
gospel
grammar
growth
grumble
hammock
hardships
handkerchief
height
herbs
hosiery
honor
hymn
ignorant
immediate
infancy
initial
injurious
innocent
interrupt
invitation
justice
ladle
lapel
latchstring
lawyer
lazily
league
lief
linear
lining
liquid
loiter
macaroni
magazine
mandolin
mantle
materials
medicine
method
mineral
minister
mischievous
mixture
modern
molasses
morsel
mortar
mucilage
natural
necessary
nicety
nimbly
nobody
northern
nursery
offence
offered
operate
opinion
opposite
pamphlet
parasol
partial
passenger
pathway
patriot
peaches
pedal
perform
permission
persuade
photograph
pickles
platforms
policy
positive
possible
postscript
poultice
poverty
presently
preserves
privations
problem
profit
pshaw
query
quire
quotient
radish
rapidly
raspberry
really
recipe
rein
remember
reptile
resolution
restored
rifle
rivulet
rogue
ruin
rural
sable
salad
salary
savage
savory
scarcity
scenery
scholar
scour
scythe
section
seize
serials
serious
settlement
shepherd
shield
shrivel
sickle
sieve
silken
simplify
snatch
society
soldier
soot
sorrel
southern
spectacle
spinning
splendid
squeak
stamen
stationery
statue
steadily
steward
stirred
stomach
stored
strangle
student
suburb
suddenly
suggest
surplus
system
tailor
tanned
tarnish
tassel
tennis
terrible
thorough
tidings
tonic
torment
tower
trapper
treasures
trifle
trowel
tutor
tying
upholsterer
urchin
utensil
vacation
valuable
vanilla
vanished
vapor
vegetable
vexation
villain
violin
visitor
volunteer
wafer
wealthy
weapon
whither
wholesale
wicket
windows
worship
wrench
Yankee
youth

LESSON VII.

RULES.

Give the general rule for syllabication in the Spanish language. Affirmative and negative rules for Spanish capitalization.

Give two rules of spelling for final *y*. Examples and exceptions.

Give four for final *e*. Examples and exceptions.

Give two other rules.

Give and explain how you would teach important rules for syllabication; for English pronunciation; for accent.

Rules for forming derivatives are most important. Illustrate.

LESSON VIII.

MISCELLANEOUS.

How may pupils be helped in spelling by the association of sound? By the association of form? By habit?

A wonderful thing is a written word, but is it as wonderful as a spoken word? Discuss.

Was there ever a time in the history of man when there was no language? When there was a common one?

The Indo-Germanic family of languages includes seven distinct branches. Name them, briefly explaining each.

Give the sources of the English vocabulary. Of the Spanish.

What is the psychology of spelling?

What part does memory play in spelling? The ear, the eye, and the hand?

What would you consider a proper incentive to study spelling?

What is the importance of personal lists? How should they be used? Which is of greater importance, the speller or the reader? Give reasons for your answer.

There are five ways by which the meaning of a new word may be taught. (1) By using it in a sentence; (2) By definition or description; (3) By giving a synonym or the antonym; (4) By illustrating with object, action, or drawing; (5) By Etymology. Illustrate.

LESSON IX.

WORDS OTHER THAN ENGLISH.

Pronounce, spell, translate and give the meaning of the following Spanish words:

recapitulación	reino	deslustraso	Londres
sombrío	instrucción	convenio	nogal
asno	cortés	francés	vals
doble	cliente	Grecia	tedioso
timpano	docucento	lapon	mala yerba
tierra	iglesia	Sena	carretero
chispa	predicador	nilo	zocalo
nación	canción	moro	dias
Judío	barco	Mejico	nuez
gobierno	cano	Liorna	

Foreign words and idioms in common use. Pronounce, give meaning and tell the language:

Ad libitum	Per annum	Nom de plume
Alma mater	In toto	Savant
Bona fide	Au revoir	Table d'hote
Extempore	E pluribus unum	Tete-a-tete
Finis	Adobe	Aufwiederschen
Habeas corpus	Expose	Mañana
Prima donna	Eclat	Tamale
Carte blanche	Beau monde	Mandamus
Pro rata	En route	Adios
Sine die	Esprit de corps	Fete
Sub rosa	Qui vive	

ORTHOGRAPHY

THIRD GRADE.

Mrs. Nora Brumback, Santa Fe, New Mexico.

References: The New Mexico edition of Reed's Word Lessons, Common Sense Spelling Book, New World Speller, Champion Spelling Book, Word Studies, Bailey-Manly Spelling Books, and the 1915 Institute Manual for New Mexico.

NOTE: The exercises may constitute another day's lesson when necessary.

LESSON I.

SPELLING.

A few minutes each day should be used for spelling as a distinct subject in primary grades. How would you teach words that contain an unusual sound value? How would you teach the vowel letters? The consonant letters? What use may be made of the phonic group? Should the child know the names of all the letters before beginning to spell? Why so? At what time should the child begin spelling as a distinct branch?

Exercise 1.

Give words containing the unusual sound value of *eigh, aul, aug, ould.*

Illustrate ordinary sound values.

Write the vowels. Name the consonants.

How many Spanish vowels? Name them.

Form five words from each of the following phonic groups: *ash, em, ing, og, utter.*

LESSON II.

DICTIONARY KNOWLEDGE.

What three important things does the dictionary teach? Explain the index words.

What Webster wrote the Webster dictionary?

Name two other dictionary authors.

What should a school board know about a dictionary before purchasing one for the school? Why?

What should the teacher know in order to gain the greater value from it?

What grades can use the dictionary?

How should its use be taught?

Exercise 2.

Make your own dictionary lists. Sew or paste together the necessary number of leaves to give one page to each letter. Paste one letter at the top of each page, following the alphabet order. Make copies of the words of lessons after they have been learned, giving each child a copy to cut up. Paste the words under their

proper initials. It will be alphabetical only for one letter, but this gives the fundamental idea and is enough for little ones' use for finding words and for review lists.

LESSON III.

SYLLABICATION.

What is meant by a syllable? Name and define four kinds. Contrast the Spanish and English. How would you develop the syllable sense in a first grade pupil?

Give your method of teaching two-syllabled words to a Spanish-speaking child.

Name important rules of syllabication.

Discuss the importance of teaching the child to spell by syllables.

What is accent? Name and define the kinds.

EXERCISE 3.

Write five mono-syllabic words, each having a different long vowel sound, and name the phonic group of each.

Write five dis-syllabic words representing the five short vowel sounds. Separate into syllables.

Write five tri-syllable words and three poly-syllable ones. Separate into syllables and place the accent.

A syllable never ends with soft *g* unless a *d* is before the *g*. Prove.

LESSON IV.

PRONUNCIATION.

Define pronunciation. What is the standard authority in pronouncing words?

Make and name ten symbols that serve as guides in pronouncing.

Give the derivation of the word *diacritical*.

To correctly prônounce a printed word, what three things must be known?

Exercise 4.

PRONUNCIATION CONTEST.

bouquet	research	romance	automobile
inquiry	vehement	route	squalor
impious	water	suite	recess
Iowa	lamentable	creek	illustrate
meningitis	rise (*n*)	maniacal	politic
finance	despicable	often	pronunciation
appendicitis	accent (*v*)	almond	contrary
Arab	accent (*n*)	telegrapher	forehead
Canish	discourse	gallant	chauffeur
docile	mischievous	alternate	depot
frontier	precedent (*n*)	mustache	salmon
legislative	gross	acclimated	

Do not attempt to pronounce until Webster has been consulted. Separate into syllables and mark the letters and the accent.

LESSON V.

DEFINITIONS.

Define alphabet, etymology, word, sentence, phrase, letter, sound, diphthong, synonym, antonym, consonant, group, exceptions, abbreviations.

Exercise 5.

Recite at least two alphabets.

How many distinct meanings can you give for the word *post?* Write twenty-five derivative words obtained from it.

Write five sentences introducing homonyms. Five phrases using synonyms.

Write antonyms for love, happy, down, death, morning.

Give words using the following consonant groups: *ch, tch, ph, gh, wh, sh, dg.*

Give seven exceptions to the "y" rules.

Write the abbreviations for the months of the year, the days of the week, and for ten states. Give the months and days in Spanish.

LESSON VI.

Review lessons that the Institute was weak in and bring up unfinished work.

Exercise 6.

Conductor to give a one-hundred-word spelling contest. Select words from the state text book in spelling. Use the New Mexico edition.

LESSON VII.

MISCELLANEOUS.

Give and illustrate examples of imperfect pronunciation. What is the teacher's duty concerning these?

How may a teacher be the cause of a pupil stammering?

Discuss peculiarities of speech. Is it racial?

Of what value is a spelling book?

Give groups of misused words.

Exercise 7.

Only one English word ends in *sede,* three in *ceed,* all other words of this class end in *cede.* Give the examples.

Write these numbers correctly in words:

1	7	11	19	38	90	9th	47th
2	8	14	22	49	1st	24th	79th
4	9	18	24	84	4th	38th	96th

Caution: Use the hyphen with care. Pronounce each of the following words in two ways and tell the difference in meaning: desert, increase, impress, contract.

LESSON VIII.

WORDS.

Define a simple word; a compound word; a primitive word; a derivative word.

What is a suffix? A prefix?

What is formed when two words are made into one by omitting one or more of the letters in one of them?

Exercise 8.

Mark, pronounce and define, in two ways, the following words: use, live, slough, wind, row, wound, lead, bow, lower, tear, read, tarry, house, mow.

Name five suffixes meaning *small.* Give examples.

Can a thing be *very* unique? Why?

Why is it wrong to say "a couple of days"?

When do you *pay* bills? When *settle* accounts?

Does one *climb* or *crawl* down a precipice?

Use the following prepositions correctly: of, in, with, at, to. Show their incorrect use. .

Define and pronounce correctly the following new words: dirigible, pedometer, kinetoscope, insurgent, chauffeur, referendum, garage, aviation, semester.

LESSON IX.

PECULIARITIES.

In some words *e, i* or *o* before a final *l* or *n* is often not sounded, and the *l* or *n* serves as a vowel. How is this shown? What is the symbol called?

What three consonants are never doubled?

Can each of the vowels be doubled?

Is there a relation between lark and larkspur? Between Calicut and calico? Between dove and columbine? Explain.

You speak of india ink, oxford shoes, guinea fowls. Why should not the first part of each of these compounds begin with a capital?

Explain the use of the diaeresis.

Exercise 9.

Give five examples of the voice glide. Place the diaeresis correctly in phaeton, reenact, aeronaut, coordinate, aerial, zoology.

Give words illustrating the doubling of each vowel.

There are two *r*'s in *referred;* why not in reference? Why is *e* retained in *hoeing?*

Prove that words ending in *cal* are adjectives; those in *cle* are nouns.

Words containing *ph* or *rh* in the same syllable are of Greek origin. Give examples.

Give the capital letter rules used in the Spanish language. In the English.

LESSON X.

THE SPELLING LESSON.

Is English spelling a difficult subject? Give and illustrate five reasons for your answer?

Why and how do pupils differ in their spelling memory?

The business of the teacher is to find the best method of approach in spelling for the class as a whole. Instructor to illustrate.

Exercise 10.

Write a twenty-five-word paragraph on the subject of Lesson X. Correct.

LESSON XI.

GENERAL.

What is meant by a negative prefix? Explain silent letters. What is a double consonant? Explain word making.

Exercise 11.

Prefix *dis* to obey, belief, satisfied, oblige.

Prefix *un* to earth, couple, bosom.

Prefix *in* or *im* to correct, modest, visible, polite.

Define each of the eleven words before and after adding the prefixes.

Supply the missing silent consonants in dou-t, ple-ge, ya--t, lis-en, hym-, -erb.

Find the hidden words in frolicking, signature, colonel, durable, dearth.

LESSON XII.

REVIEW.

LESSON XIII.

Spanish.

How many sounds for *g, c, a, n.* Illustrate each.

Explain strong and weak vowels.

Make and name punctuation marks.

What attention do you give to Spanish?

Are we educating the Spanish child when we instruct him wholly in a language other than his mother tongue? Discuss.

Exercise 13.

Translate into Spanish:

"Thirty days hath September,
April, June and November."

"I am as black, as black can be."

LESSON XIV.

CONTRACTIONS.

Analyze the word contraction.
What rules govern such words?
Is it good form to use them?
Distinguish between contractions and diminutives.
Does the Spanish language admit of contractions?

Exercise 14.

Give the equivalent for ne'er, e'er, e'en, o'er, it's, sh'an't, he'd.
Give ten other contractions.
Is won't a true contraction?

LESSONS XV AND XVI.

Instructor to give a list of fifty words taken from the first and second readers that are often confused, and instruct as to best methods of teaching them.

Exercises 15 and 16.

Institute take notes on the above.

GRAMMAR AND COMPOSITION

FIRST AND SECOND GRADES.

Prepared by Miss Jean Forsyth, New Mexico State Normal, Silver City, N. M.

Kittredge and Farley's advanced English Grammar and Scott and Southworth's Lessons in English, Book II, are the texts used. Any modern and advanced English Grammar, however, will serve as a text for the first ten lessons. Goldwasser's Methods of Teaching English will be a helpful reference to the remaining lessons.

LESSON I.

KINDS OF SENTENCES. PARTS OF SPEECH.

1. Discuss the meaning of the following terms as found in the study of grammar: grammar, language, analysis, diagraming, parsing, inflection, syntax, construction.

2. Study kinds of sentences. Illustrate each kind from your own conversation and from books and magazines.

3. Note the simple subjects and predicates of these sentences; the complete subjects and predicates.

4. Name and define the parts of speech. The Instructor will find it profitable to give some time to rapid drill in naming the parts of speech in sentences.

5. Write sentences illustrating the use of the following words as indicated:

well: as adverb, noun, adjective.
fast: as adjective, adverb, verb, noun.
high: as adjective, adverb.
round: as adjective, adverb.
last: as adjective, adverb, noun, verb.

6. Introduce phrases and clauses as substitutes for parts of speech. Study the *noun phrase,* the *verb phrase,* the *adjective phrase,* the *adverb phrase* and note their likeness to the noun, verb, adjective and adverb.

LESSON II.

SENTENCE BUILDING.

1. Illustrate the use of *complete* and *incomplete* verbs. Make a list of ten copulative words. Explain the difference between *complete* and *copulative* verbs.

2. Name and illustrate the three kinds of complements. Why is *subjective complement* a better term than *attribute complement?* Write sentences containing predicate adjectives and predicate nouns.

3. Note the essentials of a sentence.

Study the modifiers of these essentials. The system of marking sentences by under and overlining is much superior to the old line system of diagraming for these two reasons: the sentence is left intact and may be read with ease, and only that portion of a sentence under study need be marked. The instructor should devote some time to the teaching of this simple method of diagraming, paying attention to the reason for the use of certain lines for certain offices of the sentence. This system of marking is only a short method of analysis, therefore the attention should be massed on the relationship of words in the sentence and not to the marking of every word.

4. Correlate the study of clauses as modifiers with their study as parts of speech. Write sentences illustrating the nine different kinds of modifiers. The student will find the summaries at the end of each chapter very helpful in review.

5. The instructor may find it wise to devote a limited amount of time to rapid drill in sentence analysis at this point.

LESSON III.

INFLECTION OF NOUNS. DECLENSION.

1. Study classes of nouns: common and proper; concrete, abstract, collective, compound.

2. Consider the properties of the noun: its inflection, person, number, gender, case.

3. Person and Number. Note that the person of a noun is determined by the sense of connection. Write sentences containing nouns in first, second and third persons. Review rules for writing plurals.

4. Gender and Case. Illustrate all uses for the nominative case. The instructor should note the use of the independent or

absolute nominative; the vocative or nominative of direct address; the exclamatory nominative as well as more ordinary uses of this case.

Review rules for the formation of the possessive. Note the increased use of the possessive.

Illustrate all the uses of the objective case. Explain carefully the *cognate object,* the *adverbial objective,* the object in apposition, the subject of the infinitive. The instructor should require a number of illustrations of each use of the objective. The class may bring in lists of sentences taken not from grammars but from conversation and reading matter.

Ten or fifteen minutes should be given to the parsing of nouns.

LESSON IV.

1. Review classes of pronouns, definitions and list of pronouns in each class.
2. Decline the personal pronouns.
3. Note difference between conjunctive and relative pronouns. Illustrate in sentences. Decline the relatives.
4. Note rules for agreement of pronoun and antecedent. Make a list of common errors in this respect.
5. Review case of pronouns by drill in sentences. Correct many errors of ordinary speech.
6. Explain the use of the Indefinite—the adjective pronoun or the pronominal adjective. Note the number of everybody, all, every one, anybody, somebody, etc.
7. Study restrictive or additive and non-restrictive clauses. Note punctuation.
8. Devote some time to drill in parsing pronouns. The instructor may prepare a list of sentences containing blanks which the class will fill with *I* or *me, he* or *him, they* or *them, who* or *whom.*

LESSON V.

ADJECTIVES AND ADVERBS. WORDS AND PHRASES.

Review *classes* of *adjectives* and *adverbs* and discuss methods of teaching pupils to distinguish.

2. Notice the special rules for the use of *a* and *an.*
3. Review *comparison* and call attention to the proper use of comparative and superlative in speech.
4. Discuss methods of distinguishing between adverbs and

adjectives in sentences like the following: The fire burns bright. The fire burns brightly.

5. Study adjective and adverb phrases as adjectives and adverbs.

6. Review rules for punctuation—the use of comma and semicolon.

LESSON VI.

INFLECTION OF VERBS. CONJUGATION.

1. Review classification of verbs—transitive and intransitive. Note that verbs transitive in one sense may be intransitive in another. What are factitive verbs?

2. Distinguish between the *copula* and the *auxiliary*.

3. What are *weak* and *strong verbs?* Redundants and Defectives? Impersonal verbs?

4. Review rules for the agreement of subject and verb. Illustrate with sentences containing compound subjects, collective nouns as subject and verb, as: The father as well as the children is here.

5. Review carefully rules for the use of *shall* and *will, should* and *would*.

6. Discuss the use of the passive voice in composition, as in the sentence: They were given their freedom.

7. Make a practical review of the subjunctive and potential moods.

8. Review sequence of tenses in subordinate clauses.

9. The class should be able to write the conjugation of any verb.

LESSON VII.

INFINITIVES AND PARTICIPLES.

1. The Infinitive and the Participle are both verbs; the former is used as a noun, the latter as an adjective. The verb form in *ing,* if a noun, as in the sentence: "My *going* there depends upon my father *giving* his consent," cannot be a participle and must be an infinitive.

2. Note the two forms of the Infinitive: (1) with *to* and (2) in *ing*. Define the Infinitive and form it of any ten words.

3. The following items are worthy of attention: (1) The preposition *to* is not part of the infinitive, but its so-called sign. (2) the infinitive is found in verb phrases with will, shall, may,

can, must, etc., as in the sentence: I must go. (3) The infinitive has two tenses. (4) The infinitive has three uses.

4. Study the infinitive in all its different uses or constructions.

5. Review participles and illustrate all the different constructions for the participle.

LESSON VIII.

PREPOSITIONS, CONJUNCTIONS, INTERJECTIONS.

1. Review uses of prepositions. Note that many prepositions are also conjunctions and adverbs.

2. Discuss the compound preposition.

3. Review classes of conjunctions.

4. Distinguish between conjunctions that merely join and those which have an adverbial meaning as well.

5. Make lists of *correlatives.*

6. Distinguish between the real *interjection* and nouns or other parts of speech used in exclamation.

LESSON IX.

CLAUSES AS PARTS OF SPEECH.

1. Discuss methods of presenting the subordinate clause as a part of speech.

2. Review adjective clauses, introduced by relative pronouns and relative adverbs; adverbial clauses introduced by conjunctive adverbs and conjunctions.

3. Note classification of adverb clauses.

4. Review all the constructions which noun clauses may assume.

5. The instructor should call for many examples of complex sentences taken from both spoken and written discourse.

LESSON X.

ANALYSES, PARSING, PUNCTUATION.

1. Discuss the purpose of sentence analysis. Show that the analysis of a sentence may be understood by a student of any grammar text, while too much dependence upon any one system of diagraming puts him at a disadvantage.

2. Analyze sentences of varying degrees of difficulty.

3. Is there much value in the minute analysis and parsing of long sentences?

4. Pay especial attention to correct usage of adverbs and adjectives.

5. The instructor should give as much time as can be spared noting the constructions of words in sentences. Parse the nouns, pronouns, and verbs of sentences used in previous drills.

6. Note the principal uses of the four main marks of punctuation, the comma, semicolon, colon, dash.

7. The instructor may assign a page from any text to be used as the basis for drill in explanation of the use of punctuation marks.

LESSON XI.

LANGUAGE IN THE PRIMARY GRADES.

Materials: (1) Subject for conversational exercises. (2) Stories. (3) Pictures. (4) Nature study. (5) Manual training. (6) Reading Lessons. (7) Poems. (8) Songs.

1. Suggest subjects for conversational lessons, subjects most intimately connected with the life of the child.

2. Discuss suitable stories, legends and fables for primary pupils.

3. Get the names of suitable pictures for language work.

4. How may the nature study work and the manual training be utilized for language lessons?

5. Discuss suitable poems and songs for primary grades.

LESSON XII.

LANGUAGE IN THE PRIMARY GRADES. METHODS.

1. Oral expression should predominate during the first two years, and should occupy a prominent place in the next two years. The fault of much language work is that the teacher talks too much, the pupils not enough. Discuss methods of conducting conversational exercises to overcome this fault. How shall the teacher correct errors in speech? How shall she assist the child in enlarging his vocabulary?

2. Stories should be told by the teacher and reproduced orally by the pupils. The teacher may assist by questions if necessary.

3. Pictures frequently suggest stories and offer good material for conversational and reproduction exercises.

4. Poems and songs are memorized.

5. The first written language work should be given under the direct supervision of the teacher. Single sentences are first written and attention paid to form, penmanship, the beginning capital, the period.

6. The instructor may very profitably conduct model recitations illustrating the proper way to conduct the lessons suggested above.

LESSON XIII.

LANGUAGE IN THE INTERMEDIATE GRADES. MATERIAL.

1. Every lesson should present material for language work in the third, fourth, fifth and sixth grades. Geography, history, literature, nature study, manual training, domestic science and art, literature, the material presented at the daily assembly hour should furnish the bulk of material used in the language lessons. How may this be done?

2. Oral work should not be neglected. The teacher must use tactful methods of correcting errors in speech. Suggest methods. Encourage the child in enlarging his speaking and writing vocabularies. How?

3. Attention should be paid to form in the written work. The compositions should be very short, and very carefully written. Long rambling themes, poorly punctuated and carelessly constructed, no matter how original, are out of place in these grades. Why?

4. Drill on capitals and punctuation until the habit of correct writing is fixed. How teach marks of punctuation?

5. Discuss the paragraph. How teach paragraphing to the fourth grade?

6. Have pupils memorize poems and songs. A helpful exercise consists in writing these poems from memory, paying attention to the markings.

LESSON XIV.

ORAL COMPOSITION AND LITERATURE IN THE GRAMMAR GRADES.

1. Oral work in composition must have its place even in the upper grammar grades. We talk much more than we write. Encourage conversation in the assembly hour, using current events

and topics of common interest as a basis. Short five-minute talks on "How to build a coop," "How to test yeast," etc., will correlate the industrial and composition work. Brief arguments assist in organizing thought. Recitations should be given in complete sentences.

2. What are the aims in oral composition?

3. Literature should serve as material for composition work. The teacher should read to the class, the class to each other and her. Encourage freedom of expression and an interested happy attitude toward what is read. Make it familiar.

4. Selections should be memorized and recited.

LESSON XV.

METHOD OF REPRODUCTION.

1. Oral reproduction. (1) The pupils may retell the story with or without the assistance of the teacher's questions. In what grades would the teacher question? What is the value of this exercise?

(2) Of what value is dramatization? Discuss methods of dramatizing a story. How much freedom should be allowed the pupils in supplying the conversation?

2. Written reproduction. (1) Dictation. What are the two methods? In what grades is this exercise frequently used? What is its value? (2) Copying. Of what value is copying? Why should accuracy and exactness in form be insisted upon?

LESSON XVI.

THE USE OF THE MODEL.

The model should be used in composition work from the fourth grade through to the eighth.

1. In the fourth grade the aim should be to imitate the model as such. It should be presented and studied with a view toward its imitation. The models should be very carefully graded.

2. The models may be (1) in description, a single object as a desk, a bookcase; (2) in narration, a fable, a story; (3) in exposition—how to play a game, how to bake a cake.

3. What is the value of the model in the fourth grade?

4. In the fifth and sixth grades the model may be studied with a view to guidance in original work. The child should know the subject for his original composition while he is studying the

model. This subject should be similar to the subject of the model.

5. Toward the end of the sixth year there should be less study of the model and more attention paid to original composition.

LESSON XVII.

WRITTEN COMPOSITION.

1. An important consideration in composition work is the subject. Subjects should be concrete, personal, definite. Criticise the following subjects: When father was a boy. The first money I ever earned. A narrow escape. My first prize. Character. The wonderful fountain-pen. Courage.

2. Form. Attention must be directed to proper capitalization, spelling, punctuation and paragraphing. Discuss methods of increasing vocabularies. What attention should be paid to sentence structure, to the co-ordination and subordination of parts?

3. Too critical attention to form will prevent free expression; slovenly work, however, should never be accepted. Do not lose sight of the necessity of drilling on common errors of speech.

4. The child should feel that his teacher appreciates and enjoys his composition, hence the correction of compositions should be carefully done. Suggest and discuss methods of correcting themes. What should the child get from these corrections?

5. Goldwasser suggests the following devices for composition exercises: (1) Unfinished Stories. (2) Imaginary Adventures. (3) Description of Pictures in Poems. (4) The Picture Gallery. (5) Imaginary Autobiographies. (6) Dramatic Compositions. (7) Moving Pictures. (8) The Class Newspaper. (9) Geography.

LESSON XVIII.

LETTER WRITING. THE FORMS OF DISCOURSE.

1. In what grades does letter writing form part of the composition work? What is the particular value of the letter as an exercise in composition? What attention should be paid to form? What should the content be in different grades? How make letter writing interesting to pupils?

2. In the grammar grades the four forms of discourse should be recognized as such—and the compositions classified. Literature read in class should also be identified with one of the four forms.

LESSON XIX.

METHODS OF TEACHING GRAMMAR.

1. The Course. The teacher should prepare a course in grammar which gives due emphasis to important things. The grammar presented in the seventh and eighth grades is usually too abstruse, hence impractical.

2. What things are most essential in the study of grammar? Where should the study of the element of a sentence be introduced? What is supposed to be the aim in teaching technical grammar? Why is grammar a dry subject? How can it be made interesting?

3. Grammar should be taught inductively. Illustrations should be taken from daily speech.

4. Write an outline for five lessons in grammar. (1) The compound sentence. (2) The transitive verb. (3) The Infinitive. (4) The Adjective Phrase. (5) The Attribute Complement.

LESSON XX.

A REVIEW.

1. Text Books. Nothing assists a teacher so much as a knowledge of the contents of a number of different texts. Know how different grammarians dispose of difficult points.

2. Do you know when to use who and when whom? Note in Lesson XX of the course for third grade certificate.

3. Do your pupils answer with a rising inflection? Many teachers are guilty of this habit.

4. Can your pupils write a good examination? Do they know about margins, the proper numbering of questions, how to paragraph?

5. Do you waste time in useless diagraming and lengthy discussions of minor points?

6. Will your pupils be able to apply their knowledge of grammar when they reach the high school?

ENGLISH GRAMMAR

THIRD GRADE.

Prepared by Miss Jean Forsyth, New Mexico State Normal, Silver City, N. M.

Any English Grammar will serve as a text for the following lessons. Each teacher should have a copy of Scott-Southworth Lessons in English, Book II.

LESSON I.

THE RELATION OF LANGUAGE AND GRAMMAR.

1. What language or languages do your pupils speak?
2. Do you know a language other than the English? Do you know its grammar?
3. Does the language make the grammar or the grammar the language? Which should be taught first? Why?
4. Define (1) *Grammar,* (2) *language,* (3) *letter,* (4) *word,* (5) *sentence.*
5. Of what value is the study of language? Of grammar?

LESSON II.

MATERIAL FOR LANGUAGE LESSONS.

1. Make plans to show how you would use the following material for language work: (1) Observation. (2) Nature Study. (3) Stories. (4) Pictures. (5) Poems. (6) Games. (7) Reading Lessons. (8) History. (9) Letters. (10) Industrial work.
2. Where and how can you get the above material?

LESSON III.

FORMAL LANGUAGE WORK IN THE GRADES.

1. When should the first writing be done?
2. Why should accuracy and exactness be the aim rather than originality in the first written composition work?

3. Give the general rules for punctuation and capitalization, and discuss methods of teaching.

4. How do you correct errors of speech made by the younger pupils?

5. When should you teach paragraphing, and how?

LESSON IV.

SENTENCES.

1. How are sentences classified as to meaning? Define and illustrate each class.

2. Sentences are (1) simple, (2) compound, (3) complex. Define and illustrate each.

3. Define and illustrate the clause: (1) Independent, (2) dependent, (3) subordinate.

4. What kind of connectives are used (1) in complex sentences, (2) in compound sentences.

5. Review rules of punctuation for each kind of sentence.

6. What are (1) adjective clauses, (2) adverb clauses? Illustrate.

7. What parts of speech introduce adjective and adverb clauses?

8. What are noun clauses? Write sentences containing noun clauses (1) as subject, (2) as object complement, (3) as object of a preposition.

LESSON V.

SUBJECT AND PREDICATE.

1. Define (1) Subject, (2) Predicate.

2. What is meant by (1) simple subject, (2) simple predicate, (3) modified subject, (4) modified predicate, (5) compound subject, (6) compound predicate?

3. What is the usual order of subject and predicate in a sentence?

4. Find the subjects of all sentences used previously.

5. Find all the predicates of sentences previously brought to class.

6. What are the subjects and predicates of the following sentences:

(1) It is too cold to rain.

(2) There is a house a mile away.

(3) When do you expect her?
(4) Call your dog back.
(5) Hurry! Why are you waiting?

LESSON VI.

THE PARTS OF SPEECH.

1. Name the parts of speech. What part of speech is the infinitive and the participle?

2. Write sentences containing all the parts of speech. Which parts are most important? Why?

3. What parts of speech are used largely for subjects and predicates of sentences?

4. How are the other parts of speech used in the sentence?

5. Write sentences to show that words may be sometimes one part of speech, sometimes another. Use sleep as *noun* and *verb;* round (*noun, adjective, verb, adverb*); high (*adjective, adverb*); well (*adjective, adverb*); some (*adjective, pronoun*). Mention ten other such words.

LESSON VII.

NOUNS.

1. Define (1) noun, (2) inflection, (3) declension.

2. Into what classes are nouns divided? Illustrate each class.

3. Name the properties or modifications of the noun. Define each.

4. State the rule for the agreement of the subject of a sentence and the verb in the predicate.

5. Write sentences containing nouns in the first person.

6. What are the cases of English nouns?

7. Write sentences showing all the constructions in which (1) the *nominative* case is found, (2) the *objective* case.

8. Give the rules for forming the *possessive.*

9. The instructor may well devote ten or fifteen minutes to a spelling lesson in which the singular noun is pronounced and the plural form written by the class.

LESSON VIII.

PRONOUNS.

1. Define pronoun. Name and illustrate four classes of pronouns.

2. Decline the personal pronouns.

3. Write sentences containing personal pronouns: (1) in subject, (2) as attribute complement, (3) as object complement.

4. What are compound pronouns? How are they formed? Illustrate their use.

5. When are adjective pronouns adjectives and when pronouns?

6. What is an antecedent? State the rule for the agreement of antecedent and pronoun.

7. Fill the following blanks with personal pronouns of the first and third person and give reasons for your choice:

(a) This is————talking.
(b) Is it————you accuse?
(c) He asked John and——to go.
(d) Do you want Mary and——to practice?
(e) They gave the book to you and———.

8. Fill the following blanks with *who* or *whom,* giving reasons for your choice:

(a) ————did you say won?
(b) ————do you think I saw today?
(c) ————do you mean?
(d) ————do you think is the best doctor in town?
(e) The question of———should be selected arose.
(f) The man————I thought was my friend deceived me.

LESSON IX.

ADJECTIVES AND ADVERBS.

1. Name and define the classes of adjectives.

2. Write sentences to show how adjectives may be used (1) to modify nouns, (2) in predicate.

3. Give rules for the use of articles and their pronunciation in reading.

4. What is comparison? Name and illustrate the degrees of comparison.

5. Write sentences to illustrate the use of the comparative and the superlative.

6. Compare the following adjectives: evil, far, good, late, much, little.

7. How are adverbs classified? Illustrate each class.

8. Explain regular and irregular comparison. How are most adverbs compared?

LESSON X.

VERBS.

1. Define (1) verb, (2) verb-phrase, (3) auxiliary.

2. What office in the sentence is filled by the verb?

3. What is meant by regular and irregular verbs? Illustrate.

4. Make a list of ten transitive and ten intransitive verbs.

5. Name the modifications of the verb.

6. What is meant by tense? Name the simple tenses. Name the complete or compound tenses.

7. What determines the person and number of a verb? Give the rule for agreement of verb and subject.

8. Conjugate the verb *strike* in the indicative mood, active voice.

9. Fill the blanks with verbs and give reasons for your choice:

(1) Each of the suspected men———held.
(2) Neither he nor she———here.
(3) One or the other of those boys———taken it.
(4) Tom as well as his sisters———present.
(5) A number of pupils———waiting.
(6) The number of seats———small.

LESSON XI.

VERBS, CONTINUED.

1. Define voice.

2. Write ten sentences containing transitive verbs in both active and passive voice.

3. Some verbs which are transitive in one sense may be intransitive in another. Give examples.

4. What is meant by the principal parts of a verb? Give the principal parts of *lie, lay, sit, set, take, do, sing, teach, learn, be, know, throw, ought.*

5. What is meant by the progressive form of the verb? The emphatic verb-phrase?

6. Describe the different moods. Write sentences to illustrate the use of each.

7. Review rules for the use of *shall* and *will, would* and *should.*

8. Fill the blanks with verbs and give reasons for your choice:

(1) I———go to town this afternoon.
(2) ———you ride today?
(3) He said he thought———fail.
(4) ———I borrow your pen?
(5) ———I finish your work now?
(6) I———not do it again, I promise you.
(7) ———you please take your seat?

LESSON XII.

INTERJECTIONS, PREPOSITIONS, CONJUNCTIONS.

1. Define (1) interjection, (2) preposition, (3) conjunction.

2. When is O used and when Oh?

3. Write three sentences containing interjections.

4. Define prepositional phrase. May a prepositional phrase be also an adjective phrase? An adverb phrase? Illustrate in sentences.

5. Name and define two classes of conjunctions.

6. Write three sentences containing a compound subject, three containing a compound predicate.

7. Review rules for punctuation of compounds.

8. Write sentences using the following words as indicated: *for* (preposition, conjunction; *since* (conjunction, adverb, preposition); *until* (relative or conjunction, adverb, preposition); *but* (preposition).

LESSON XIII.

MODIFIERS.

1. The noun may be modified by (1) another noun (two ways), (2) adjective, (3) pronoun, (4) phrase, (5) clause. Write sentences illustrating each modifier of the noun.

2. The adjective and adverb may be modified by an abverb. Illustrate.

3. The verb may be modified by (1) an adverb, (2) noun, (3) phrase, (4) clause. Illustrate.

4. The phrase may be modified by an adverb. Illustrate.
5. Review rules for the order of adjectives and adverbs.
6. What changes are made in the punctuation when the natural order of modifiers is changed?
7. Point out and classify the modifiers in sentence found on any page of your history or civics text.

LESSON XIV.

COMPLEMENTS.

1. What is meant by complement?
2. Define, (1) object complement, (2) attribute complement, (3) objective complement.
3. What kind of verbs take object complements? Attribute complements? Objective complements?
4. Write five sentences containing both a direct and an indirect object.
5. Change the form of the verbs in 4 to the passive. What disposition is made of objects and subjects?
6. Change the verbs in sentences of question 6 from active to passive. What disposition is made of subject, object complement, objective complement.
8. Point out the complements in any page of any text book.

LESSON XV.

PARTICIPLES.

1. Define participle.
2. Write sentences to show the participle as an adjective modifier.
3. Illustrate the use of the participle in the following constructions: (*a*) in verb phrase; (*b*) as subjective complement.
4. How may the participle be used as the objective complement? Write sentences to illustrate. Take these sentences from spoken discourse and from texts other than the grammar.
5. The term *participle* should be confined to the verb form used as adjective, the terms *nounal verb, gerund* being used to name the verb forms in *ing* used as nouns.
6. Write two sentences showing the use of the absolute or independent participial phrase. What is the case of nouns in such phrases?
7. What parts of speech may modify the participle?

LESSON XVI.

INFINITIVES.

1. Notice that in giving the principal parts of verbs the first form is one of the infinitive forms and that this form of the verb is always used in verb phrases, with the auxiliaries *shall, will, might, must, could,* etc.

2. Write the two infinitive forms, (1) the infinitive with *to* and (2) the infinitive in *ing* of any list of verbs.

3. Point out the infinitive form in the following sentences:

(1) I could not do that.
(2) I shall go to town this afternoon.
(3) May I see your book?

4. Note that the *to* is merely the sign of the infinitive, not part of it.

5. Define the infinitive. What are its two tenses? Define the gerund. What may modify the infinitive? Illustrate.

6. The infinitive may be used in various noun constructions. Illustrate.

7. The infinitive may be used as an adjective or adverbial modifier. Illustrate.

8. The infinitive may be used with a so-called subject after verbs of wishing, commanding and the like. Write sentences to illustrate this use.

9. Write sentences to illustrate all the constructions of the gerund.

LESSON XVII.

ANALYSIS AND DIAGRAMING.

1. What is meant by analysis?

2. What is the value of sentence analysis?

3. Work out a short practical form of analysis and analyze sentences that the instructor may select from those already given by the class.

4. Analyze sentences of varying difficulty. Give as much time as possible.

5. The system of marking sentences in the Scott and Southworth Grammar is superior to the old line diagraming system. Why?

6. Use the new system enough to understand reasons for the choice of particular lines.

7. Too much dependence on the diagram is a serious mistake. Why?

8. How much time do you give to diagraming in your grammar classes?

LESSON XVIII.

PARSING.

1. Define (1) parsing, (2) syntax.

2. What is meant by the construction of a word in the sentence? Parse all the nouns and pronouns in the following sentences:

(1) None are all evil.
(2) What does this mean? Who are you?
(3) Liberty! Freedom! Tyranny is dead!
(4) Mary, did you give me this book?
(5) John, the new pupil, goes home that way.
(6) My heart is like a singing bird.
(7) I have lived my life.
(8) Thou mightst call him a goodly person.
(9) I commanded him to be silent.
(10) Ha! here is Hepzibah herself!

3. Parse the verbs, adverbs and adjectives in the following sentences:

(1) The old shingles were black with moisture.
(2) The company grew merrier and louder as their jokes grew duller.
(3) She must be more careful.
(4) When shall we three meet again?
(5) Swiftly they glided along.
(6) I shall have been seen by that time.
(7) He had heard those voices before.
(8) She is taller than I.

LESSON XIX.

REVIEW.

Select the correct form and explain why correct:

1. He thought the burglars were (they) (them).
2. Everybody thinks (his) (their) own way is wise.
3. If anybody has a better plan let (them) (him) speak now.
4. It is (I) (me).

5. I told Mary (whom) (who) I knew would keep my secret.
6. I told Mary (whom) (who) I knew I could trust.
7. He left without (anyone) (anyone's) knowing.
8. Some of (us) (we) boys are going.
9. (Us) (we) girls are going too.
10. He helped my mother and (I) (me).
11. Mary writes faster than (I) (me).
12. I had (laid) (lain) down to rest.
13. The yeast will not (raise) (rise) if it is too cold.
14. Let me (sit) (set) it down for you.
15. That present is for John and (I) (me).
16. When anyone is talking, it is bad manners to interrupt (them) (him).
17. (Whom) (Who) do you suppose I am?
18. (Who) (Whom) do you think I mean?
19. I, who (am) (is) a beginner, cannot compete with you, who———an expert.
20. He believes the author to be (me) (I).

LESSON XX.

SUGGESTIONS.

1. Send for the state course of study of this and other states; you will find excellent material for language and grammar work.

2. Insist upon accuracy and exactness. Do not accept slovenly work. Correct errors in speech in a tactful way but correct them.

3. Learn to do without a text in presenting work to the class. Prepare each lesson yourself before class time.

4. Teach grammar inductively; present the idea, then the name, and from the presentation form the definition.

5. Take your illustrations and examples from the conversation of yourelf and your pupils.

6. A good strong course in language is the best preparation for grammar that a student can have.

GEOGRAPHY

FIRST, SECOND AND THIRD GRADES.

Prepared by Supt. C. C. Hill, Roswell, N. M.

This outline is based upon Tarr and McMurray's Second Book—the adopted text.

LESSON I.

MATHEMATICAL GEOGRAPHY.

1. Describe the surface of the earth. Its proportion of land and water. Circumference. Diameter.

2. Name two movements of the earth. The results of these movements.

3. Define (1) latitude; (2) longitude; (3) meridian; (4) prime-meridian; (5) parallels; (6) axis; (7) pole; (8) hemisphere; (9) equator.

4. Which of the above are natural and which are conventional distinctions? What are the best methods of teaching this lesson to a class?

5. Discuss the effect of latitude on various crops. Corn: tobacco; fruits.

6. Explain the variation in calendar in relation to the movements of the earth.

7. Discuss the system of land description. What is meant by "Township South" and "Range East"?

LESSON II.

1. What is meant by the growth of a continent? (1) its birth; (2) its early history; (3) its later life.

2. From what source has the knowledge of this growth been learned?

3. Discuss the formation of coal. Define peat; lignite; anthracite; bituminous.

4. Discuss the formation of mountains as to causes. Compare the Appalachians and Cordilleras, (1) as to age; (2) as to altitude; (3) as to ruggedness.

5. Describe mesas and their surroundings. How formed? Compare a mesa and canyon. How were volcanoes formed?

6. Discuss glaciers (1) as to origin; (2) as to work. Give proofs of the "Great Ice Age."

7. Give origin of icebergs. What becomes of them?

8. Discuss the value of relief maps. Name other devices that may be used touching the facts in this lesson.

9. What are contour maps? Industrial maps?

10. What per cent of the world's population live in lowland countries, and why?

11. Discuss sunlight and its action on plants. How is all plant food formed?

LESSON III.

1. Atmosphere: What processes depend on atmosphere? What is known of its height? Why is atmosphere a part of the earth? How does its density vary?

2. Climate: Discuss its influence on plant life. (2) Its influence on animal life.

3. Discuss and explain (1) trade winds; (2) calms; (3) cyclones; (4) monsoons.

4. Distinguish between heat zones and light zones.

5. Discuss the relation of wind to rainfall.

6. Name five oceans and five large currents, locating each.

7. What determines the movements of ocean currents? Discuss their influence on climate.

8. How have geographical conditions affected man's progress? Give some examples of the effects of geographical conditions on the distribution of plants; of animals; on man's way of living.

9. What was the condition of the Indians found in this country. Give reason for such condition.

LESSON IV.

PLANTS, ANIMALS AND MAN.

1. Name and locate the races of mankind. Name the races that mostly differ from each other.

2. Discuss the following: (1) savagery; (2) barbarism; (3) civilization.

3. Name and discuss five religious beliefs of mankind and the portions of the earth where each of these predominates.

4. Name seven chief industries of man. Locate portions of the United States that are noted for each.

5. Give reasons why the American Indian did not become a more powerful race. Show the value of the domesticated animal in the development of a country or a people.

6. Give examples to illustrate how geographical conditions hinder distribution of plants and animals. Show how they affect man's way of living.

7. Name five characteristic animals (1) of Australia; (2) South America; (3) Africa; (4) Eurasia; (5) North America.

8. What is the nature of the life forms of islands? of the life forms of the ocean?

9. What portions of the world have produced the most intelligent and energetic people, and why?

10. Give reasons for the predomination of English-speaking people in North America.

11. Define (1) monarchy; (2) republic; (3) pure democracy; give an example of each.

LESSON V.

NORTH AMERICA.

1. Describe the principal river systems of North America.

2. Locate the zones of each of the three countries of North America, by parallels. How many degrees of latitude of each? of longitude?

3. Name an arid region of North America and state why it is so. Name a fertile region and state why it is so.

4. What forces are at work to decrease the acreage of arid regions? What regions are unproductive because of being (1) too cold; (2) too dry; (3) too swampy; (4) too rocky?

5. Name all the waters that surround North America.

6. What portion of North America is engaged in producing (1) staple food; (2) lumber; (3) iron; (4) coal; (5) cotton; (6) gold and silver?

7. Discuss the Texas Norther, the Chinook wind, the cyclone, the periodical rains of the Pacific coast, the blizzard and the cold and warm waves.

8. Why is the western half of the United States so thinly inhabited?

9. Give a detailed description of one reclamation project in North America.

10. Define tillage. Scientific dry farming.

11. Name the vegetative organs. Give three general classes of plants. Describe the plants of the far north.

12. Draw an outline map of North America, showing the main mountains, rivers, lakes, etc.

LESSON VI.

UNITED STATES.

1. Draw a map of the United States.

2. Point out on map the following regions: (1) grain, (2) cotton, (3) grazing, (4) coal, (5) gold, silver and copper, (6) lumber, (7) truck farming.

3. Discuss the natural and artificial forces that adapt each region to the above mentioned products.

4. Describe all territory belonging to the United States that is not incorporated in State government.

5. What is our population and how does it compare with Germany?

6. Show the danger of "Unrestricted Foreign Immigration."

7. What class of immigrants are barred from our shores? Why?

8. Discuss the present distribution of population of the U. S.

9. What form of government is the United States? Name and discuss its three branches. Mention the leading offices of each branch.

10. Name the plant fiber crops. What fiber crop is produced in New Mexico from a plant? Name two fiber-producing animals common in New Mexico.

11. Name the several groups of States as arranged by Tarr & McMurray. Discuss the principal industries of each group. To which group does New Mexico belong?

12. What possessions were obtained by the United States as a result of the war with Spain?

LESSON VII.

NEW MEXICO.

1. Draw an outline map of New Mexico, indicating (1) mountain ranges; (2) rivers; (3) five largest cities; (4) show all counties.

2. Name three principal occupations of the people of New Mexico. Which do you consider the most important?

3. Locate the irrigated districts of the state. Discuss two methods of irrigation.

4. What portions of New Mexico are favorable for the following named crops: (1) alfalfa; (2) Kaffir corn, milo maize and Soudan grass; (3) wheat?

5. What reclamation projects has the United States government undertaken in New Mexico? With what degree of success?

6. What New Mexico streams are a part of the following river systems: (1) Mississippi; (2) Rio Grande; (3) Colorado?

7. Name the county seat of each county. Name all officers of the state. Name the officers of your own county.

8. What kind of forage crops in New Mexico enrich the soil? Describe a silo and silage. Name some root crops in New Mexico. Discuss the fruit production of the state.

9. What minerals are successfully mined in New Mexico?

10. Name and trace the railroads in the state. What is the area of New Mexico? Of your county?

LESSON VIII.

MEXICO, CENTRAL AND SOUTH AMERICA.

1. Name the Central America countries. Which is the largest? The smallest?

2. Give some important facts about the history of Mexico; about present conditions in that country.

3. Describe the State of Panama. The Canal. The government of the Canal Zone. What are the difficulties encountered in operating the canal and the cause of them?

4. Draw map of South America. Compare with North America in (1) extent of latitude; (2) longitude; (3) climate; (4) rainfall; (5) river systems; (6) occupations of the people.

5. Which do you consider the most progressive country of South America, and why?

6. What are the prevailing kinds of government in South America? What do you understand is the meaning of President Wilson's "Pan American Doctrine" as applied to South and Central American countries? How does it differ from the "Monroe Doctrine"?

7. Name all the countries of South America. Give reasons why South America has been much less rapidly settled than North America.

8. Name some products of South America that are not com-

mon in North America. Name five islands near the coast of South America.

9. Compare the western highlands of North and South America, (1) as to general height; (2) height of peaks; (3) as to probable age; (4) extent of plateau.

10. Would you devote as much time to the study of our nation as to the study of England or Germany? Why?

11. Would you devote as much time to the study of South and Central America as to the study of countries in Eurasia? Why?

12. Give some reasons for special emphasis to be given in our schools to the study of the geography and language of the Latin American republics.

13. Show the advantages of teaching geography in the advanced grades by the topical method.

LESSON IX.

EURASIA.

1. Draw outline map of Europe, showing the boundaries of the four great nations.

2. Name and locate the nations now involved in the European war. Describe the Balkan states.

3. State briefly for what each of the following cities is noted: London, Liverpool, Paris, Rome, The Hague, Berlin, Brussels, Constantinople.

4. Discuss the present condition of Belgium; Serbia.

5. Including wealth, manufactures, commerce, possessions, power and civilization, which do you think is the greatest nation of Eurasia? How does it compare in these matters with our own country?

6. Name the principal rivers of Europe. Mountains, gulfs, bays and seas.

7. Discuss the chief agricultural regions of Europe. Crops, stock and dairy products.

8. Describe the Dardanelles. Why is Turkey often referred to as the "Sick Man of Europe"?

9. Discuss our debt to Asia: (1) for domesticated animals; (2) religion; (3) morals. Why have Asiatic peoples fallen behind in these matters?

10. Compare the European and Asiatic highlands in length, extent and height. Compare the Japanese and British islands, in position, latitude, size and climate.

11. What is the present form of government of China? Account for the difference between the Chinese and Japanese people.

12. Draw a map or make a sand clay map of the Holy Land.

LESSON X.

AFRICA AND AUSTRALIA.

1. Compare Africa and South America: position, native peoples, products.

2. What part of America is in the same latitude as the Sahara? Why has not northern South America a desert like the Sahara?

3. Why has England been specially benefited by the Suez Canal?

4. Give reasons why Africa has been explored and settled so much later than either North or South America. Tell something of the work of Livingstone; Stanley; Kruger.

5. Discuss the peculiar animal life of Madagascar. Why was the southern point of Africa called "Good Hope"?

6. Describe the continent of Australia: (1) location; (2) area; (3) surface features; (4) climate.

7. Name the chief cities of Australia. Rivers. What part is best settled? What part is least settled? Why?

8. How is Australia governed? What are the chief occupations of the people? The chief products?

9. Discuss the best route to go from New York City to Melbourne. What is the distance?

10. Name and describe the chief island groups of the Pacific Ocean.

11. What are the best methods to employ to make geography a living study instead of a study of dead dry facts?

12. Discuss the value of the study of biographies and primitive life as aids in the work of geography.

ARITHMETIC

FIRST AND SECOND GRADES.

Prepared by Lela A. Manville, Principal of Training School, New Mexico State Normal School, Silver City, N. M.

The methods in this course were taken from Smith's Teaching of Arithmetic.

LESSON I.

1. Discuss: Early lessons in number must be related to the child's experience with things.

2. Discuss and outline the "Related Number Work" for the first two grades, under these heads: Administration, Science, and Construction.

3. Discuss: Exercises in eye, ear and touch training should be given. How may rythm be used in counting in the lower grades?

4. Discuss the value of drill. How may a thorough mastery of the forty-five combinations be obtained?

5. What are the five fundamental processes?

6. Apply the following order of procedure in the lower grades to simple problems: (*a*) work with objects; (*b*) work without objects but with concrete problems; (*c*) work with abstract problems; (*d*) require the pupil to convert the abstract problems into concrete problems.

7. Tell the meaning of $\frac{1}{2} \div \frac{1}{4}$; $\frac{1}{2} \div 3$; $\frac{1}{2} \times 2$ 1-3.

8. Explain these processes: $\$18 \div \$2 = 9$; $\$18 \div 2 = \$9$.

LESSON II.

1. Discuss: One of the first things a child should learn is the necessity for checking each operation. No problem is correct unless it checks, and each child must check his own.

2. How is addition checked? Illustrate.

3. When should oral work be given in reference to written work? Discuss.

4. Discuss: All written problems should consist of a statement and a solution. The equation used in the solution.

5. Show how addition and subtraction may be taught together.

6. Develop a method for checking subtraction.

7. How should the multiplication tables be taught?

8. Give two common methods for checking multiplication.

9. Show method of developing division from multiplication.

10. Develop method of checking division.

11. Solve problems discussing best methods in reduction, addition, subtraction, multiplication and division of denominate numbers.

LESSON III.

1. Discuss: "It is a matter of relatively little importance that we present fractions, let us say, by sticks or paper folding or clay cubes or blocks; but it is a matter of great importance that we present the subject in some concrete fashion, so that the child shall not proceed by arbitrary rules, but shall make up his own directions, and that he shall be so guided that these directions are the best that can be evolved at his age."

2. By means of simple fractions develop the following four principles for fractions: (*a*) multiplying the numerator multiplies the fraction; (*b*) multiplying the denominator divides the fraction; (*c*) dividing the denominator multiplies the fraction; (*d*) dividing the numerator divides the fraction. Give reason for each step.

3. Discuss the best method of approach for decimals.

4. If a man loses 3-16 of the cost of a house when he sells it for $1365, what did the house cost?

5. A man sold 12 books at $1.50 each, on which his profit was ¼ of the cost. What was his profit?

6. If a factory working only ¾ of its capacity burns 292½ tons of coal in a week, what should it burn when working only 7-15 of its capacity?

7. A woman can buy maple syrup at 44c a quart, or in gallon cans at $1.38. If she wishes 4 qt. how much does she save by purchasing it by the can?

8. If 3 1-5 tons of coal cost $20.48, how much will 11 9-10 tons cost at the same rate?

9. If you know the freight rate per hundred pounds, how do you find the freight charge on a ton?

10. If you know the cost of a fraction of anything and wish to know the cost of the whole, how do you proceed?

LESSON IV.

1. Discuss: The problem of teaching children to reason is twofold: (*a*) It is a matter of the ability to use language. (*b*) It is a matter of good thinking.

2. Discuss: In all work it should be borne in mind that there are three things that are properly demanded at one time or the other: (*a*) to work rapidly, (*b*) to put on paper a brief explanation, (*c*) to give a brief analysis or oral explanation.

3. Discuss: Set forms of analysis are more harmful than helpful to children.

4. Discuss: A child should be led to estimate the results before solving problems.

5. If a shipment of 5100 lbs. of cattle, live weight, sold for $225.42, what would 3500 lbs. sell for at the same rate?

6. To irrigate a farm at the rate of 1-5 inch in depth every day requires the flow of 210 gallons an hour through a certain ditch. What flow would be necessary to irrigate it at the rate of 0.3 inch a day?

7. When 14 men require 225 days to do a certain piece of work, how long would it take 50 men to do the same work?

8. Find the cost of keeping a cow for a year when she requires 3.5 tons of hay at $7.00 per ton, 1200 pounds of ground feed at 90 cents per 100 pounds, and pasture worth $8.00.

9. Numbers which are usually represented by figures and by words, are sometimes represented by lines, especially to enable a person to compare at a glance relative quantities. Make a graph showing the changes in the average attendance for the following months:

Sept. 600; Oct. 595; Nov. 605; Dec. 595; Jan. 500; Feb. 595; Mar. 585; Apr. 565; May 570; June 560.

10. A drawing is frequently of great assistance in showing more clearly the conditions involved in a problem. Make a graph for the following: A train leaves W. at 1:00 P. M. and travels 30 miles per hour. At 3:00 P. M. another train leaves W. going at the rate of 40 miles per hour. At what time will the latter train overtake the other?

LESSON V.

1. Discuss: The difficulties which arise in the study of percentage are almost wholly difficulties of expression. All the arithmetical principles involved have arisen before in common frac-

tions and in decimals. It is the arithmetical language, the terminology which is new to the pupil.

A clear, concise statement of the problem which the teacher has to face helps materially in securing its solution. Most of the problems in percentage deal with the finding of a given per cent of some number, hence should receive chief attention.

2. What is 20 per cent of the salary of a man who receives $1500.00 a year?

3. How much does a man save who spends 80 per cent of his salary, which is $1500.00?

4. $400.00 worth of goods are marked 30 per cent above that amount but sold at 10 per cent below the marked price. For how much were the goods sold?

5. A man owing $1400.00 decreases his indebtedness 20 per cent each year. How much will he owe at the end of 3 years?

6. Compare problems under common fractions, decimals and percentage and explain fully that there is no essential difference in arithmetical principles involved, only a difference of language.

7. For how much a ½ peck must a dealer sell peaches costing $3.00 per bushel to make a profit of 20 per cent?

8. Find the per cent of boys and that of girls in a school containing 78 boys and 82 girls.

9. A man delivered 2500 pounds of milk to the creamery. It tested 3.8% butter fat. He was paid at the rate of 24c a pound for the butter fat. How much was this?

LESSON VI.

1. One year a merchant sold goods that cost him $1500.00 at an average advance of 33 1-3% of the cost, but lost 2% from bad debts. Find his net rate of gain.

2. It has been found that plants can take from the soil in one season about ¼ of 1% of the potassium that it contains. If a farmer takes a sample of his soil to an experiment station to be analyzed, and finds that an acre, to the depth that he plows it, contains 20,000 lbs. potassium, how many pounds per acre can the plant take up in a season?

3. A dealer received a bill for window glass listed at $730.00 but the discounts were 1% and 15%. Find the net.

4. A man bought a quarter section (160 acres) of government land at $2.50 per acre. He sold ¾ of it at $8.50 per acre and the remainder at $10.00 per acre. The selling price was what per cent of advance over the first cost?

5. Of what value are the terms, base, rate and percentage? Are the so-called cases in percentage of any value?

6. Anything equals 100% of itself. Why? Therefore 100%=cost.

7. A man sold a house and lot for $6000.00, which was $1000.00 more than it cost him. What per cent did he make?

8. A man buys a ham weighing 14 lbs. at 20c a pound. When he bakes it, it loses 35% of its weight. At how much a pound must he sell it to make a profit of 25%?

9. A merchant made $1.50 when selling an $18.00 overcoat at "a quarter off." At what per cent of profit had he marked it? (An $18.00 overcoat is one marked to sell at $18.00.)

10. One year a farmer raised 300 bu. of apples. From the same orchard he raised 450 bu. the next year. What was the per cent of increase?

11. Find the selling price of goods listed at $1150, discounts 33 1-3% and 10%, sold at a profit of 40% on the cost.

LESSON VII.

1. The commission is always some per cent of the cost when the agent buys, and of the selling price when the agent sells. Why? Illustrate. The total cost is always some per cent of the cost. The net proceeds is always some per cent of the selling price. Why? Illustrate.

2. If an agent is paid $750.00 as his commission at 2½%, how much does his employer receive?

3. A man has a claim of $15,775.00 against a corporation. He pays a collector 5% of the amount collected. What is his total loss, including the collector's fee, if but 65% of it is collected?

4. My purchasing agent in Chicago sends me a bill for $6776.60 covering cost of mining machinery, commission of 2%, and $65.00 for extra expenses. Find his commission and the cost of the machinery.

5. For selling a house, a real estate agent received $96.25, which included $7.65 for advertising, and $27.90 for repairs. Find the rate of commission if the house was sold for $3035.00.

6. How much insurance at ⅞% can be placed on a building for $42.00?

7. A factory worth $162,500.00 is insured for ¾ of its value at $16.50 per $1000.00. What per cent is the rate? What is the premium?

8. A tax of $11,000.00 is to be levied in a town. The prop-

erty is assessed at $500,000. If there are 500 polls, each paying $2.00, what will be the taxes, including his poll tax, of a man whose property is assessed at $12,500?

9. A total tax of $383,780 is raised in a town having 1015 polls, each assessed at $2.00. The assessed valuation of the property is $25,450,000. What is the tax rate upon the property?

LESSON VIII.

1. Discuss the date of a note, date of sale and date of maturity in their relation to one another and to the time of note and time of discount.

2. The bank discount is always some per cent of the amount due at maturity. Explain.

3. Discuss the relation of face of note, interest, amount due at maturity, bank discount, and net proceeds to one another.

4. Under what circumstances are partial payments made? How must the note read?

5. Draw a note for partial payment, indorse the payment on the back, and solve.

6. Discuss the following methods: Six per cent method. Cancellation method. Banker's short method.

LESSON IX.

1. Write out a check on the Continental National Bank for $35.77, payable to Henry Thompson, and signed by yourself. If instead of cashing the check at the bank, he wishes to turn it over to William Hart in payment of a debt and let him cash it at the bank, what must he do?

2. Name all the different ways in which you could pay a debt that you owe to a person in a distant city. Describe the steps in the procedure in each case.

3. If you had a note for $850.00 bearing 6% interest made February 14, 1911, and due in 6 months, and you discounted it at a bank February 25, 1911, at 5%, what proceeds would you receive?

4. Write out a note in which you promise to pay John Jones $560.00, 6 months after date, with interest at 5%. What will you pay him at the end of 6 months in settlement of the note?

5. A man sold his farm for $6500.00, taking a note due in 6 months, interest 5%. He at once sold the note to a bank, discount 6%. What did he get in cash for the farm?

6. In order to get cash for goods, some firms allow a discount of 2% from the bill, if paid within 10 days. Others take a 60-day or 90-day note, which they discount if they need cash. On a bill of $750.00, which is better for a firm, and how much, to allow a 2 per cent discount or to discount a 60-day note at 6%?

LESSON X.

1. The difficulty in studying stocks is to understand the meaning of the terms used and the relation they bear to one another. Study the terms used in stock transactions.

2. What is meant by "stock quoted at 112, brokerage ⅛"? When is the brokerage added, and when subtracted? Why?

3. The cost, selling price, income, brokerage, total cost, or net proceeds is always some per cent of the face of the bond. Explain.

4. When Illinois Central stock pays a dividend of 6%, what is the income from 250 $100 shares?

5. My 12% dividend from some stock was $180.00. How many $100 shares have I?

6. If I should invest $27,000 in 4½% bonds at 90, no brokerage, what would be the yearly income from them?

7. How much must be invested in 5% bonds at 108, brokerage ⅛%, to yield an annual income of $2050?

8. On May 13, 1906, a man bought 30 shares of Cent. of N. J. at 239⅞. He received two 8% dividends, and sold Dec. 13, 1907, at 158⅛. What was the total loss, counting money worth 5% interest?

9. What is the average yearly income per $100 on 4% 10-year bonds bought at 79⅞ and brokerage? To what rate of interest is this equivalent?

LESSON XI.

1. A farmer estimates 12 tons of silage to the acre from a field of corn. If the field is 22 rd. by 40 rd., how many tons does he expect?

2. Find the cost, per square foot, of a 4-foot cement walk across the front and one side of a corner lot 80′x196′. The inner edge of the walk is the outer edge of the lot.

3. How many tiles 8 inches square will it take to cover a floor 38 ft. wide and 56 ft. long?

4. Allowing 56 lb. of coal to the cubic foot, how many tons of coal may be stored in a bin 10 ft. by 12 ft. and 7 ft. deep?

5. Find the entire surface of a prism 4 in. by 2 in. by 6 in.

6. Find the number of board feet in a board 16 ft. long, 9 in. wide and 3 in. thick.

7. Find the volume of a cylinder whose radius is 8 in. and whose height is 15 in.

8. The radius of a cylinder is 15 in. and the height or altitude is 40 in. Find the area of the total surface.

9. A cubic foot of ivory weighs 114 lb. What is the weight of a billiard ball 2 in. in diameter?

10. What must be the height of a tomato can to hold a quart (57.75 cu. in.) if its diameter is 4 in.?

11. How many solid cords of 16-inch wood can be ricked in a room 20 ft. long, 18 ft. wide and 12 ft. high?

12. How much belting does it require to make a belt to run over two pulleys, each 20 in. in diameter, the distance between their centers being 18 ft.?

13. Find the diameter of a wheel that makes 660 revolutions in going a mile.

14. A baseball diamond is a square, 90 ft. on the side. What is the distance from first to third base?

LESSON XII.

1. Reduce to lowest terms (*a*) $\frac{336}{720}$; (*b*) $\frac{837}{1139}$

2. Divide (*a*) 864 by .24; (*b*) .0169 by 5.2.

3. How high is a house casting a shadow 24 feet long, when a tree 70 feet high casts a shadow of 42 feet at the same time?

4. Which is the largest and the smallest of these fractions:

$$\frac{17}{150} \quad \frac{23}{200} \quad \frac{14}{125}?$$

5. Simplify 1-3 of $(17\frac{1}{2}-12\frac{1}{4})\div 2\text{-}7$ of $(3\ 1\text{-}6-1\ 1\text{-}3)$.

6. Express as a common fraction the value of $.27\times 2.53\div .009$.

7. When a number increased by 1-3 of itself is 84, what is the number when it is increased by 2-3 of itself?

8. Find the amount of \$540 for 4 yr. 8 mo. 12 da. at $3\frac{1}{2}\%$.

9. Three men rent a field for \$60. One puts into it 28 sheep for two months, another 12 sheep for eight months and the third 48 sheep for one month. What should each pay?

10. Find the weight of an iron plate 24 feet long, 15 feet

wide and 18 in. thick, when iron is 7.6 times as heavy as water, and a cubic foot of water weighs 1000 oz.

11. A note for $360 was discounted at 6% on July 7, the proceeds being $357.78. (*a*) In how many days is the note due? (*b*) On what date is it due? If it were drawn for 90 days, on what date was it made?

12. The volume of a cube is 27 cubic yards. What is the entire surface?

13. A wash boiler 12 in. deep, 10 in. wide and 20 in. long has round ends, *i. e.*, each end is a half cylinder. How many gallons does it hold?

14. What is the lateral area of a cone whose slant height is 4 ft. and the diameter of whose base is 3 ft.?

15. A man received $1560 as the annual 12% dividend on stock that he owned. He afterward sold 35 shares at 142½ per share and the remainder at 143 per share, brokerage ⅛% on each sale. What were the net proceeds of each sale?

16. Tape needles that cost 2-5c each sold for 2c each. Find the per cent of profit.

17. A farmer found that 8½% of the corn tested would not sprout. By planting only selected seed, the yield was 78 bu. per acre. How many bushels per acre did he gain by testing the seed?

ARITHMETIC

THIRD GRADE.

Reprinted from Manual of previous year.

No person should attempt to teach school until he knows thoroughly the subject matter and pedagogy contained in the following outline.

These lessons are longer than can be covered in some institute recitation periods, and each should be divided into two lessons where the institute is four weeks in length. In two-week institutes the instructor should choose such parts of each lesson as will prove of greatest value to the prospective teacher.

LESSON I.

FUNDAMENTAL PRINCIPLES.

1. Define: unit, number, notation. Give two examples of each kind.

2. Define: addition, addends, sum; subtraction, minuend, subtrahend, remainder. Illustrate each.

3. Define: multiplication, multiplicand, multiplier, product; division, dividend, divisor, quotient. Illustrate each.

4. Explain the term "fundamental operations." The greater of two numbers is 17214 and their difference is 2685. What is the lesser number?

5. Fill in the missing words, and then commit: (*a*) The sum must be the same denomination as the———. (*b*) The remainder must be the same denomination as the ———. (*c*) The product must be the same denomination as the ———. (*d*) The multiplier is always considered————number.

6. Fill in the missing words, and then commit: (*a*) When the dividend and divisor are abstract numbers, the quotient is———number. (*b*) When the dividend and divisor are like numbers, the quotient is————number. (*c*) When the dividend is a concrete number and the divisor an abstract number, the quotient is the same denomination as the————. (*d*) In problems containing the signs of addition, subtraction, multiplication and

division, perform the operations indicated by the signs—and—before those indicated by — and —.

7. How would you check: addition, subtraction, multiplication, division?

8. If the divisor be 372, and the quotient $57.46, find the dividend.

9. What is meant by a power of a number? By the square of a number? By the cube of a number? Illustrate.

10. The teacher should explain every new principle, or subject, when the first lesson is assigned on taking it up. After explaining the principle, or subject, the teacher *should not go* to the pupil and solve his problems for him. The proper time and place to assist the pupil is in the recitation.

LESSON II.

FACTORS, MEASURES, MULTIPLES.

1. Define: factor, prime number, composite number, odd number, divisor, multiple.

2. When may a number be divided by 2? By 3? By 5? By 8?

3. Find the prime factors of 225, 1001, 3737, and 3432.

4. Explain what is meant by the abbreviations G. C. M., and G. C. D. Find the G. C. D. of 60, 144, and 576.

5. Explain the difference in meaning between G. C. M. and L. C. M. Find the L. C. M. of 9, 27, 54, 63, 90.

6. Find the shortest distance that can be exactly measured by a 3-foot rule, or a 5-foot pole, or a 10-foot pole.

7. Find the quotient of 18x27x96 divided by 12x36x54, by cancellation.

8. Each pupil should, as frequently as possible, place upon the blackboard a correct solution of some problem from his lessons, previously prepared.

LESSON III.

ADDITION AND SUBTRACTION OF FRACTIONS.

1. Define: fraction, terms of a fraction, numerator, denominator, common fraction, proper fraction, compound fraction, complex fraction.

2. Reduce to lowest terms, 78-273, 121-132, 231-253.

3. Reduce 5-32 to 256ths, 7-48 to 288ths.

4. Reduce 576-96 to a mixed number, and 35 35-72 to an improper fraction.

5. Find the sum of 15-16, 63-64 and 13-24.

6. Find the sum of 8 7-16, 15 15-32, 73 51-64.

7. Subtract as indicated: 7-16—13-48; 73 1-3—7 7-12.

8. What number must be added to the sum of 2 3-4, 5 7-8, 4 3-16 and 9 2-3 to make the sum of 5 7-12, 9 5-8, 12 1-3 and 8 11-24?

LESSON IV.

MULTIPLICATION AND DIVISION OF FRACTIONS.

1. Multiply: 264×13-24; 7-24 of 80; 1-32 of 4-5; 11-12 ×4-5.

2. In 55 minutes the minute hand of a clock makes 11-12 of a revolution. What part of a revolution will it make in 33 minutes?

3. A rod being 16½ feet long, how many feet in the perimeter of a lot that is 26 rods long and 16 rods wide?

4. Find the quotient of 28¾÷7; 8÷3 4-5; 12½÷6 2-3.

5. 119 feet is 1-16 more than what length? 17 1-5 feet is 4-5 of how many pounds?

6. Reduce to simplest form $\left\{\frac{5\text{-}16}{7\text{-}8}\right.$ $\frac{27}{9\text{-}42}$ $\left.\frac{19\text{-}32}{67}\right\}$

7. How do you multiply a mixed number by a mixed number? Illustrate.

8. Pupils should be taught to give a complete analysis of problems. They should give the reason for each step taken in the solution.

LESSON V.

DECIMAL FRACTIONS.

1. Define decimal fraction. How does it differ from a common fraction?

2-3. Write two thousand four hundred thirty-five hundred-thousandths. Write two thousand and four hundred thirty-five hundred-thousandths. Write two thousand four hundred and thirty-five hundred-thousandths.

4. From questions 2 and 3, determine the use of the hyphen, and of the word "and." What other common name for the separatrix?

5. State the rule for pointing off decimal places in a product. In a quotient.

6. Reduce to common fractions, .875, .66 2-3.

7. Reduce to decimals: five-sixteenths, 1-3, four-fifths.

8. Pupils should be taught that they should study to master principles, and not merely to solve problems.

LESSON VI.

DENOMINATE NUMBERS.

1. Define: denominate number, compound number, reduction ascending, reduction descending.

2. Repeat the table for linear measure; for square measure; for cubic measure; for liquid measure; for dry measure;

3. Repeat the table for weight used by the grocer; the table used by the jeweler; the table used by the druggist.

4. A *pound* of Avoirdupois is *heavier* than a *pound* of Troy; but an *ounce* of Avoirdupois is *lighter* than an *ounce* of Troy. Explain.

5. Reduce 2.7 T. to ounces. Reduce 2760 cubic feet to cords.

6. A man takes 100 steps of 0.8 yd. each in a minute; in how many hours and minutes will he walk a distance of 16 miles?

7. Illustrate with a drawing: circle, circumference, arc, radius, diameter, angle. Define each.

8. Reviews must be frequent. It is a good plan to make the lessons on Friday, review lessons. A good review of the subject will make the impression on the mind deeper and clearer.

LESSON VII.

DENOMINATE NUMBERS, CONTINUED.

1. Why is it necessary to have some years of 366 days, and how often do they occur? What is the exception to this rule? Give the table for time measure.

2. How does the addition of compound numbers differ from addition of integers? Illustrate by an example in each process.

3. Subtract 39 from 42; also 3 ft. 9 in. from 4 ft. 2 in. Show how these processes differ.

4. A cubic foot of water weighs 62 lbs. 8 oz.; what is the

weight of the water in a tank that contains 48 cu. ft.? Multiply 6 cu. ft. 700 cu. in. by 9.

5. Divide 240 lb. 12 oz. by 26 lb. 12 oz. If a man walk 88 yd. a minute, he walks at the rate of how many miles per hour?

6. A merchant buys 12 gross of spools of silk at $5.76 a gross. He sells the spools at 60c a dozen. How much is his profit?

7. Italy uses the time of 15 degrees E., and Indiana that of 90 degrees W. When it is noon in Italy what time is it in Indiana?

8. A pupil may be excused if he does not understand the wording or the meaning of a problem, but for inaccurate numerical work he must be judged as he will be judged in business—his work is right or else it is wrong. Accuracy is far more important than speed.

LESSON VIII.

PRACTICAL MEASUREMENTS.

1. Define triangle. Make drawings to illustrate three kinds of triangles, and define each kind.

2. Define parallelogram. Make drawings to illustrate three kinds of parallelograms, and define each kind.

3. A rectangular field containing 4.05 A. is 36 rd. long. How wide is it?

4. If the area of a trapezoid is 17250 sq. ft., the altitude 80 ft. and one of the parallel sides 225 ft., what is the other parallel side?

5. A farm is described as follows: N. W. ¼ Sec. 23, T. 2 S., R. 3 W. How much is it worth at $60 per acre?

6. What is the diameter of a circular plot of ground of which the circumference is 691,152 ft.? What is the area?

7. Make a drawing, as you would teach a class the principles of solving problems in carpeting rooms. Explain how one solves such problems.

8. Teach a principle before you ask pupils to commit rule. If the pupil thoroughly understands a principle in Arithmetic, he will then easily learn the rule, should the teacher think it best to have him do so. It is well to have pupils construct a rule, under the direction of the teacher, and then compare the newly made rule with the printed rule of the text.

LESSON IX.

PRACTICAL MEASUREMENTS. CONTINUED.

1. Find the cost of plain paper for the walls and ceiling of a room 24 ft. long by 16 ft. 6 in. wide, using strips of 8 ft. for the walls, at $1.30 a double roll.

2. State the principle by which one calculates the cost of plastering a room. Make and solve a problem in plastering.

3. Explain the terms: frieze, openings, square, tongue-and-groove, bundle, bunch, gable, baseboard, concrete, and mortar, as used in buildings.

4. At $1.10 a bunch, how much will the shingles cost to cover 1960 sq. ft., allowing 1000 shingles to 120 sq. ft.?

5. How much will it cost to put a 5-foot sidewalk on two sides of a corner lot that is 75 ft. long and 35 ft. wide, at 75c per yard?

6. What is the total area of the faces of a rectangular solid 3 ft. 6 in. by 2 ft. 4 in. by 1 ft. 9 in.?

7. How many perch of stone in the cellar walls of a house 36 ft.x 28 ft., if the walls are 1½ ft. thick and 6 ft. high?

8. Pupils should be required to learn thoroughly all the general principles of arithmetic, and with the teacher, study the solutions that are given in the text book.

LESSON X.

PRACTICAL MEASUREMENTS. CONTINUED.

1. Find the number of feet, board measure, in 2 sticks of timber 18 ft. long, 1 ft. wide, 8 in. thick. Also in 30 boards ¾ in. thick, 8 in. wide, and 12 ft. long.

2. At $1.02 a bushel, how much is the wheat worth that fills a bin 30 ft.x20 ft.x10 ft.?

3. Explain the difference between the lateral surface and the complete surface of a cylinder. Find the altitude of a cylinder whose volume is 20 cu. ft. 324 cu. in. and whose area of base is 8 sq. ft. 72 sq. in.

4. How many gallons of water in a cylindrical well 3½ ft. in diameter and 6 ft. deep?

5. How would you find: (*a*) The number of rolls of paper required to paper the walls and ceiling of this room? (*b*) The board feet of lumber to floor this room? (*c*) The number square

yards of plastering in this room? (*d*) The number of yards of carpet to cover the floor of this room?

6. How would you estimate the number of loads of dirt that would have to be removed to excavate for a cellar?

7. Given the weight of wheat in a bin, how would you find the number of cubic feet of wheat?

8. The teacher should never call a class to recite a lesson in arithmetic without herself having a thorough knowledge of the subject matter of that lesson. Unless she has such knowledge, the recitation must be a failure.

PHYSIOLOGY

FIRST, SECOND AND THIRD GRADES.

Prepared by Supt. J. H. Wagner, Santa Fe, N. M.

References: Davison's Health Lessons; Ritchie's Primer of Sanitation and Physiology; Caldwell and Eikenberry's General Science.

LESSON I.

THE FRAMEWORK OF THE BODY.

1. Give three functions of the skeleton.
2. Describe the structure of the spinal column and discuss its function.
3. How many bones in the skull? Describe the cranium and name the bones. What is a suture?
3. Describe the thorax. How many ribs are there, what is their use, how are they attached at the back and in front?
5. Name and describe the bones of the shoulder and of the hip.
6. Name the bones of an arm and the bones of the leg.
7. Name two principal kinds of joints and explain the movements they allow.
8. Give two functions of ligaments. What is a sprain?
9. What first aid treatment should be given for a sprained joint? A dislocation? A broken bone?
10. Name five things that may cause the skeleton of a child to take an incorrect shape.

EXPERIMENTS.

Show the supporting skeleton of a leaf. Use either an old leaf or one that has been skeletonized in a strong solution of wood ashes in boiling water.

Decalcify the drumstick of a fowl by soaking it in dilute hydrocloric acid.

LESSON II

THE MUSCLES OF THE BODY.

1. Describe the cells of a muscle. How many muscles in the human body?

2. Explain how a muscle causes the skeleton to bend at a joint. What is a tendon?

3. What functions have muscles other than moving the body?

4. Give rules for securing a correct carriage of the body. How far apart should the desks be in a fourth grade school room, say for a child ten years old? For a girl in the eighth grade?

5. On what three points of the foot does the body weight fall?

6. Why are high-heeled shoes bad?

7. Describe a good shoe.

8. In school pupils should be allowed to change their positions freely. Why?

SUGGESTION.

Get some good setting-up exercises such as those used by the Boy Scouts and discuss their value.

LESSON III.

THE HEART AND CIRCULATION.

1. Explain the movement of the blood through the body. What must be carried to the cells and what away from them?

2. Describe the different kinds of corpuscles and state their function.

3. What are capillaries, veins and arteries?

4. Make a drawing of the heart and label the important parts.

5. Give the source and function of the lymph and describe the lymphatic vessels.

6. What is the thoracic duct? The aorta? The portal circulation?

7. How does over-exercise affect the heart? Name some games that put great strain on the heart.

8. Discuss the effect of tobacco on the heart.

9. What effect does alcohol have on the heart and on the blood vessels?

10. What causes of death are especially common among drinkers on account of the effect of alcohol?

EXPERIMENTS.

Get a glass model of a force pump out of a physical laboratory and explain the action of the valves.

If a microscope is available, examine a drop of blood under the glass.

Have a demonstration made in the class of the first aid to be given in case of bleeding from a wound.

LESSON IV.

RESPIRATION.

1. What is the first object of respiration?
2. What organs are in the thoracic cavity?
3. How is the chest cavity enlarged in breathing? Explain fully the action of the ribs and the diaphragm in the act of breathing.
4. Describe the trachea and its branches.
5. How do the bronchial tubes end?
6. Explain the changes that take place in the air in the lungs.
7. Why is breathing dust dangerous? Explain how dust is disposed of in modern factories.
8. How may buildings be swept without raising a dust?
9. Discuss the out-door school room. The sleeping porch.
10. Discuss the ventilation system of the room you now recite in during cold weather.

EXPERIMENTS.

Make a solution of lime water, let it settle or filter and then have a pupil breathe through a glass tube into the lime water. Note changes and explain.

Let a smoker exhale the smoke from a cigarette, a pipe or a cigar through a glass tube into a bowl of water in which there is a fish. Note the result and explain.

LESSON V.

COLDS, CLOTHING AND BODY HEAT.

1. How are colds caused? Distinguish between epidemic and chronic colds.
2. Give three ways by which the body resistance to the germs of cold may be raised. Discuss the practice of taking cold baths.
3. What is catarrh? What is bronchitis?
4. Explain the purpose of clothing. Discuss linen, cotton, woolens, fur and feathers as materials for clothing.

5. Name and describe the two layers of the skin. Describe a hair follicle; a sweat gland. What is the source of sweat?
6. Explain how the heat of the body is regulated.
7. How may wet feet or damp clothing injure the body?
8. What is the effect upon health of overheating the body?
9. Why does alcohol give a sensation of warmth?
10. What has been the experience of explorers in regard to the power of drinkers and of abstainers to withstand the cold?

EXPERIMENT.

Take two glasses, same size, and fill partly full of hot water. About one wrap a woolen cloth and about the other a linen cloth. After ten or fifteen minutes take the temperatures with a thermometer. State conclusion.

LESSON VI.

THE NERVOUS SYSTEM.

1. Make ân outline of the nervous system.
2. State two functions of the nervous system.
3. Explain the following: A nerve fiber, a ganglion, motor nerves, sensory nerves.
4. Describe the brain.
5. What is the cerebrum? Its function?
6. What is the cerebellum and its function?
7. If the cerebrum is removed can an animal live?
8. What is the effect if a person or animal has an injury to the cerebellum?
9. Describe the spinal cord.
10. What is the medulla?

DISSECTION.

To study the gross structure of the brain, use the brain of a sheep. Remove from the cranium a couple of days before it is to be dissected and harden in a half-and-half solution of grain alcohol and water.

LESSON VII.

THE NERVOUS SYSTEM, CONTINUED.

1. What is a reflex action? Give an example.
2. What is a habit? Explain how it is formed.

3. Why is rest necessary for the nervous system?

4. Give some facts which indicate that open-air life prevents exhaustion of nervous force.

5. Discuss the effect of alcohol and tobacco on the nervous system.

6. What is the effect of hope, joy, fear, anger and sorrow and other emotions on the nervous system?

7. Discuss this statement: "As a man thinketh, so is he."

LESSON VIII.

THE EYE.

1. What means are there for protection of the eye from blows, from light and dirt?

2. Describe the muscles of the eye.

3. Make a diagram of the eye and be prepared to describe the different essential parts, giving their functions.

4. Explain the formation of the image.

5. How is the eye accommodated to near and far objects?

6. What causes near sightedness? Far sightedness? Astigmatism?

7. Name some things that should be avoided because they allow germs to enter the eyes.

8. From what direction should the light come when one is working?

9. How much window space should a school room have?

10. Name some practices of reading and study that are harmful.

LABORATORY WORK.

The eye of a sheep is a desirable specimen for dissection and study. Remove one from the head of a slaughtered sheep or goat and place in a half-and-half mixture of grain alcohol and water for twenty-four hours or more. Use a sharp knife and scissors and dissect for the class.

LESSON IX.

THE EAR.

1. Describe the outer ear and give its use.

2. Name the essential parts of the middle ear, giving the function of each part.

3. Locate the inner ear and name its parts, giving uses.
4. Explain how a sound wave stimulates the nerves of hearing.
5. What is the difference between a loud sound and a low sound? What determines the pitch of a sound?
6. What causes ear ache? What causes most of the cases of deafness in adults?
7. Why is a blow on the side of the head dangerous?
8. What damage may be done by an unskilled person attempting to remove objects from the ear?

SUGGESTION.

The ear of some animal such as a sheep or goat is not difficult to dissect if you have a pair of pliers, a knife and a small saw. With a little care in the work, the three bones may be located and removed and mounted on a piece of cork for examination.

LESSON X.

ORGANS OF TOUCH, TASTE AND SMELL.

1. What is the organ of touch? What is learned through this sense?
2. What is a papilla? Where are the nerves most abundant?
3. How do we know size, roughness or smoothness in an object?
4. Where are the nerves of taste?
5. Locate and describe the different taste buds.
6. How does the food reach the nerves of taste?
7. How may the sense of taste be injured?
8. What is the organ of smell? Name the nerve.
9. What is an odor?
10. How may the sense of smell be injured?

LESSON XI.

THE DIGESTIVE ORGANS.

1. What is digestion?
2. Name the parts of the digestive system.
3. Describe the function of the teeth.
4. How many salivary glands are there? Locate them and describe the action of the saliva on food.

5. Describe the esophagus.

6. Describe the stomach and explain the action of the gastric juice.

7. Describe the intestines and explain the muscular action of these and the office of the villi.

8. Name the juices poured into the intestines and the use of each.

9. What causes appendicitis?

10. What effect has alcohol on the stomach and tell how this interferes with health.

LESSON XII.

FOODS.

1. Give three uses of foods.

2. Name the three classes of foods and give an example of each.

3. What foods are rich in protein? in starch? in sugar? in fat?

4. What is a food? What is a poison?

5. Which classes of foods give heat and strength to the body? Which class furnishes building material?

6. For what is iron used in the body? In what foods is iron abundant?

7. What disease is said to be caused by a lack of phosphorus? What foods are rich in phosphorus?

8. Name several good examples of a complete food.

9. Is alcohol a food? Discuss.

10. What happens to the fat and muscles of famine sufferers?

LESSON XIII.

THE TEETH.

1. Name the parts of a tooth. Describe enamel, crown, root, pulp cavity.

2. What causes the decay of a tooth?

3. Tell what you can about the care of teeth.

4. How many teeth in the temporary set? Give reasons for caring for this set.

5. How many teeth in the permanent set? Name and describe the different kinds.

6. What is tartar? Discuss its injurious effects on the teeth.

7. Discuss some practices injurious to the teeth.

8. Name some good mouth washes.
9. Why are hard foods better for teeth than sticky foods?
10. Why is constant candy eating injurious? Discuss the effect of tobacco on the teeth.

LESSON XIV.

DUST, MOLDS AND BACTERIA.

1. Discuss the nature and source of dust and its effect upon the delicate membranes of the nose, the eye and the lungs.
2. What is meant by living dust such as spores? What is mold?
3. What are bacteria? Are they classed as plants or animals? Explain how they multiply.
4. What is the relation of bacteria to decay? Give examples of bacterial diseases.
5. In what sense are bacteria useful? Explain how they may be cultivated.
6. Discuss the fly as an agent in the distribution of bacteria.
7. How is the typhoid bacteria transmitted?
8. Give the life history of the house fly and the best means for his disposal.
9. Discuss the importance of pure milk and water and show how the same may be polluted with typhoid. What is meant by pasteurized milk?
10. Discuss mosquitoes and malaria.
11. What relation exists between cleanliness and disease?
12. What can you do in your neighbrohood to improve the healthfulness of it?
13. What are the laws relative to quarantine in cases of infectious disease? Do you think these laws are just?
14. Do you know of cases where the laws have been broken? Was it justifiable to break quarantine?
15. Is it in any sense indecent or unclean for one to have typhoid?

LESSON XV.

WATER SUPPLY AND SEWAGE DISPOSAL.

1. Discuss the importance of pure water and the usual source of water supply.
2. Name some kinds of impurities that are highly objectionable and often found in drinking water.

3. Give the sources of bacteria found in lakes and rivers.

4. Give the methods of securing pure water in many of the large cities. Describe the water supply of New York City; of Chicago.

5. Discuss the question of sewage disposal in the cities and towns in the country.

6. What is the usual water supply of the rural home?

7. What is the most feasible plan for disposing of waste matter in the country?

8. What is the big problem for the city planner?

HISTORY OF THE UNITED STATES

Prepared by Una Bedichek, Deming, N. M.

The following outline is submitted as a guide for the summer work in the History of the United States. Muzzey's American History, Hart's Essentials of American History, Channing's History of the United States are suggested as "handy" reference works which each instructor should have.

I shall take the liberty of departing from a set outline at any point, since a sufficient outline for organized work may be found in the Table of Contents of Mace's School History of the United States.

LESSON I. (Pages 1-117)

1. Mention all the conditions in Europe that led to the discovery of America.
2. Do you believe the fall of Granada had a moral effect upon the discovery of America? Reasons?
3. Discoverers:
   - Columbus.
   - Cabots.
   - Cartier.
4. State definitely to what point each sailed.
5. Explorers:
   - Ericson.
   - De Leon.
   - De Soto.
   - Coronado.
   - Drake.
   - Frobisher.
   - Champlain.
   - Raleigh.
6. What must nations do to establish a claim?
7. State definitely the claims of England, France and Spain, based on the above explorations.
8. The study of the different tribes of Indians. In New Mexico particularly this study should be extensive. Differences should be shown between the North American and South American Indian. The pamphlets published by the Smithsonian Institute are available.
9. Name five strong men who, it may be said, "saved Amer-

ica" during the colonization. Why? Do you believe there are five?

10. Name four social classes in the colonies and state how the differences of class were shown.

LESSON II. (117-162)

INTER-COLONIAL WARS.

1. Review the claims of the different nations.
2. On what was each claim based?
3. Give definite causes and results of the following wars:
   English Succession.
   Spanish Succession.
   Seven Years War.
   Austrian Succession.
4. What war in America was a part of each? Give results.
5. What do you consider America learned from these wars?
6. About what per cent of American men were educated?
7. How does the number of schools in proportion to the population compare with those of today?

LESSON III. (162-198)

THE PERIOD OF THE REVOLUTION.

1. England's Colonial Policy.
   Read: Burke's *Conciliation with America."*
2. Give the general and specific causes of the war, including the four intolerable acts of 1774.
3. Who were the strong men of America and England at this time?
4. What do you consider the difference between a man's honor and a nation's honor?
5. Are the specific causes of all wars trivial and unworthy great nations?
6. Do you think there is a moral effect resulting from teaching the child the difference between specific and general causes
7. What are all the steps that have been taken toward the union of the colonies up to 1776?

LESSON IV. (162-198)

1. Learn the Revolutionary war by campaigns. The English plan and how it was met.

2. Campaigns for winning the Middle States.
3. War in the South.
4. War in the West.
5. War on Sea.
6. Do you feel that the United States was honor bound to pay France back in aid for the services of Lafayette? Reasons for and against.
7. Here again is a nation's honor the same as a man's honor?
8. Trace the growth in national feeling to the end of the Revolution.

LESSON V. (198-214)

THE STRUGGLE FOR A PERMANENT UNION.

1. Read the Articles of Confederation. Point out its virtues, faults. Give the reasons for the faults.
2. Read the Constitution. Point out each remedy it applied to the Articles of Confederation.
3. Read in class the clauses that have either been amended or radically changed by interpretation.
4. Who are the great men of this period and state as clearly as possible how each influenced the Union.

LESSON VI. (214-235)

THE PERIOD OF NATURAL GROWTH.

1. Our country when Washington became president:
   Socially.
   Sectionally.
   Educationally.
   Commercially.
2. What is meant by Strict-and-Loose Constructionist?
3. State fully and definitely Hamilton's internal and external policies.
4. Give four results of Hamilton's measures to establish a national credit.
5. What was the effect on America of our Proclamation of Neutrality (1793)? Name several results.
6. What are Alien and Sedition laws?
7. Why were they proposed?
8. What were the Kentucky and Virginia resolutions?
9. What are the events attending the election of Jefferson and the defeat of the Federalists?

LESSON VII. (235-257)

1. Jefferson's policy:
   War Policy.
   Commercial Policy.
2. What were four results of the Louisiana Purchase?
3. Was Jefferson a strict constructionist?
4. War of 1812.
   Causes.
   Events.
   Results.
5. Changes made in the political parties.

LESSON VIII. (257-294)

1. Why was the Missouri Compromise necessary?
2. What events led to the formation of the Monroe Doctrine?
3. Do you know how many times this doctrine has been applied to our affairs?
4. Trace the rising difficulties between the sections from the early colonies up to the time it became centered on slavery between the north and south.
5. State definitely how the question became the leading question when a new state was to be admitted. Name the states concerned.

LESSON IX. (295-336)

1. Give a brief history of the growth in sectional trouble from the just difficulties in the colonies up to the outbreak of the Civil War.
2. Explain the tariff.
3. What are the recent changes in the tariff?
4. Who were the great men of the period?
5. Who were the fanatics?
6. What attempts at compromise were made?
7. The Mexican war.
   Cause.
   Events.
   Results.
8. Give the questions raised in the presidential campaign of this period.

LESSON X. (337-385)

1. The War of the Union.
   Events.
   Results.

LESSON XI. (385-446)

THE PERIOD OF CONSOLIDATION AND EXPANSION.

1. Position of North politically.
2. Position of South politically.
3. Study this period from the point of political problems and physical difficulties.
4. Point out the blunders.
5. Study the life and deeds of Charles Sumner.
6. Study the important legislation proposed and passed—proposed and imposed.

LESSON XII. (446-)

1. Study the modern commercial and political problems.
2. The Federal Reserve Banks.
3. United States policy of expansion.
4. Several Supreme Court decisions should be studied.
5. Suggest problems to be settled and state problems that are being settled. Mention and discuss at least four of each.

LESSONS XIII AND XIV.

I would suggest a thorough review of the questions in the back of the text.

If there is a competent and willing lawyer in the town who will give an exhaustive treatise on the tariff, this will be an excellent idea. If possible get the point of view of each party.

U. S. CIVICS

Prepared by Supt. J. L. G. Swinney, Farmington, N. M.

LESSON I.

THE GOVERNMENT AND THE CITIZEN.

1. The true nature of government.
   a. In early times.
   b. In later times.
2. Develop the various forms of rule—from the home to the tribe, and so on to a republic.
3. Give the difference between a voter and a citizen.
4. Give the citizens' part in government:
   a. In a pure democracy.
   b. In a representative government.
5. What is a constitution? Do all divisions of our government need a constitution for their guidance?
6. What is the difference between a municipal and political division of territory?
7. What is a "political party"? For what purposes and how is it formed?
8. What is the convention plan of making nominations? The direct primary plan? Who are entitled to vote at each?
9. Discuss different methods of voting. Which plan to you seems best?
10. Why is it a citizen's duty to hold office? To do jury service? To do army service? What are the disadvantages of an official salary that is too small? Of one that is too large?
11. What is the theory concerning the payment of taxes? Name three kinds of taxes and discuss each.

LESSON II.

WHAT GOVERNMENTS DO.

1. In feudal times, how did the individual protect his rights?
2. Define the following terms: Plaintiff; defendant; bail; extradite; venue; panel; habeas corpus; truancy; reform school; indeterminate sentence; capital punishment (is it justifiable?);

misdemeanor; crime; direct evidence; circumstantial evidence; tort; quarantine; insurance; bankrupt; compromise; criminal procedure; civil procedure; contagious; board of health.

3. What connection, if any, between truancy and crime? Intemperance and crime?

4. What is the business of a juvenile court? Why were they established? Have they helped any boys or girls to become better men and women? How?

5. What is the meaning of an oath or affirmation in a law court?

LESSON III.

1. What is the general aim of education? What is the unit on which the school system of New Mexico is based? How does a school board member receive his office?

2. Should all the children of all the people be educated? Give reason for your answer. What is the legal age for school attendance in New Mexico? Compulsory attendance age? Quote the compulsory attendance law. Is free education beyond the high school furnished in New Mexico? Ought it to be?

3. Should school books be furnished without cost to pupils? Why, or why not?

4. What have been the chief causes of illiteracy? Do you approve of the "Moonlight School" plan for removing it?

5. Why do public charities have to be established? Which is the better plan of caring for the poor—by public charities or private charities? Give reason for your answer. What is the general effect upon the character of the receiver of public charities? In what ways are public charities dispensed?

6. Give a general discussion of the following: Good roads; country roads; clean streets; parks and play-grounds.

LESSON IV.

1. Debate: *City versus Country.* In the debate it would be well to discuss good and bad public franchises and public utility commissions.

2. Discuss each of the following resources: Forests; mines; agricultural lands—stating the importance of good roads, rivers, canals, lakes, railroads and the ocean in this development.

3. State some reasons why the government has established the forest reserves and employs such a large force of men to care for them.

4. Discuss irrigation; state reservations; national parks.

5. What is the "Fergusson Act" and why would it benefit New Mexico for it to become a law?

6. Define medium of exchange. Quote the Constitution on the coinage of money.

7. Give a general discussion of the post office system; postal savings bank; parcels post.

LESSON V.

Give this whole lesson to the discussion of Foreign Affairs: How is foreign affairs business carried on and the perplexing problems that this country has had to deal with, beginning with the Mexican revolution of Madero.

LESSON VI.

1. In discussing the Army and Navy it would be well to quote the Constitution on declaring war, raising and supporting armies and navies, and calling forth the militia of the several states.

2. In times of peace where are soldiers and sailors trained? In times of war how is the army and navy increased? Does our country accept the German view of militarism? What is meant by militarism? What is the present strength of the army and navy?

3. What is a tax? Define direct taxation; indirect. To which class do the following belong: Poll tax; occupation tax; duties on imported goods; tax for the support of schools; tax on oleomargarine; all excise taxes? Why is smuggling carried on? What method is adopted by the government to prevent it? What method of taxation supplies the government with funds to carry on the government's business?

4. Discuss the cost of maintaining the national government?

5. How are taxes levied and collected: (1) In the country; (2) in the state; (3) in the nation?

LESSON VII.

1. Give the three methods of law-making by Congress.

2. What powers are reserved to the states? Does the thought of the people tend towards giving more power to the states or on centralization?

3. Give the methods of law-making in New Mexico.

4. Under what clause in the Constitution does Congress get its right to enact "pure food laws"?

5. What is "veto power"? Initiative and referendum?

6. Discuss patent rights. Copyrights.

LESSON VIII.

THE ORGANIZATION OF THE GOVERNMENT.

1. In New Mexico what constitutes a town? A village? A city? How are each governed? Why do so many foreign immigrants settle in the cities? Why has the foreign immigration question become such a momentous one? What do we mean by "assimilation of the foreign immigrant"?

2. Discuss the organization of township, county and state governments, and parallel them with the national government, as to law-making, law interpreting and law-enforcing.

3. What is meant by the equality of states?

4. What constitutes the courts of the country; the state; the nation? How are the judges of each chosen and what is their term of office?

5. Where does the United States Supreme Court hold its sessions? How many judges compose it? Name them, and give salary of each.

6. How are members to Congress elected? How many from each state? When and why are they privileged from arrest? How is Congress organized? Who presides over each body of Congress? What is the salary of each?

LESSON IX.

1. How is the President elected? His advisers are known as the members of the cabinet. What departments in the President's cabinet? Name the heads of each department and give the duties of each department. Give their salaries.

2. What questions of international importance have been considered by the Department of State during the last four years? One member of President Wilson's cabinet has resigned during his term. Give the reason for this resignation. What has been accomplished during President Wilson's administration toward establishing "world peace"?

3. What is Civil Service? How are positions obtained in

the Civil Service? Give a general discussion of Civil Service as applied to the several states; to the national government.

LESSON X.

SOME AMERICAN IDEALS.

1. Discuss the following subjects:
   a. Hospitality to all people.
   b. Liberty.
   c. Equality of opportunity.
   d. Patriotism.

2. Give the history of the Declaration of Independence and state some of its most important features.

3. Discuss powers which are denied to the United States in the Constitution.

4. Discuss powers which are denied to the States.

5. Discuss the Bill of Rights.

6. Discuss Boys' Republics, Conventions, etc.

SCHOOL MANAGEMENT

Prepared by Supt. W. T. Conway, Raton, N. M.

NOTE: The teacher who has read Lincoln's "Everyday Pedagogy" and Kennedy's "Rural Life and the Rural School" will be prepared to discuss the topics in this outline. See also the books mentioned as references in the Outlines on Pedagogy.

LESSON I.

SCHOOL ORGANIZATION.

1. What is meant by school organization?
2. Is it necessary to make rules to govern a school?
3. From whom does all power to govern come?
4. Why is obedience to those in lawful authority so universal in the school room?
5. Why do we consider good order, promptness, silence, happiness, as emanating from the organic nature of the school?
6. To what extent does the teacher's personality enter into the complete organization of the school?
7. What should be a teacher's attitude towards all preceding organizations of the school where she is to teach?
8. How may the spirit of co-operation be aroused to assist in the complete organization of a school and thereby gain the support of parents and children at the very beginning?

LESSON II.

THE RECITATION.

1. What is the literal meaning of the recitation?
2. What is the teacher's part in the recitation, and how attained?
3. What is the pupil's part in the recitation, and how attained?
4. What are some of the distinctive aims of the recitation as enumerated by White, Ogden, Putnam, Sweet, Fitch, Sabin, and Harris?
5. Why are interest and attention two of the most vital essentials of the recitation?

6. Discuss thoroughly the testing, teaching and training part of the recitation, and what is the specific aim of each part?

7. What are the fundamental principles that underlie a careful and correct assignment of all lessons?

8. What are some of the most profitable lessons to assign for home work?

9. What preparation should the teacher make for the correct teaching of the lesson?

LESSON III.

DISCIPLINE AS A SCHOOL PROBLEM.

1. What is the purpose of discipline, and what fundamental principles govern its use?

2. Is there a psychology of conduct?

3. In what way does the development of intellect, feeling, and will of the average pupil affect the problem of discipline?

4. What is the psychology of class control?

5. Name the various methods of exercising administration discipline? When may each be used?

6. In the last twenty years the number of cases of suspension, expulsion, corporal punishment, severe reproof have been reduced several hundred per cent over that of former times. Why?

7. Why is the problem of discipline still so vital in the proper and successful administration of the public schools of this country?

LESSON IV.

STUDY AS AN ART.

1. How should pupils study?

2. What evils are manifest in the plans now used in many of our schools in teaching boys and girls to study?

3. Is there a necessity for study in all of our schools?

4. How train pupils to have specific aims in their study?

5. How train pupils to get a complete organization of their ideas which result from their study?

6. Can children be trained to judge of the soundness and worth of statements made in text books, papers, story books and magazines?

7. What recognition should the teacher take of the individuality of the average pupil?

8. Should home study be required, and under what conditions?
9. Should credits for home study be given?
10. What are the conditions for effective study?

LESSON V.

THE PEDAGOGY OF THE RURAL SCHOOL.

1. (*a*) Why is it necessary that the teacher have in mind a tentative program when she goes into any school room to teach?
   (*b*) In order to make a program that will in any measure meet the conditions of the school, what knowledge must she have beforehand of the school and its needs, and how is she to get the information requisite to making such program?
   (*c*) When should a program be changed?
2. (*a*) For class criticism, make a program for a school of five grades, and submit same.
3. (*a*) What system of "Report Cards" should be used, and what should these show?
   (*b*) Can these cards be made to show the general attitude of the pupil in school, as well as the character of his work?
   (*c*) Can they be made to show the preparedness of his lessons, his attentiveness in class, and the likelihood of his being advanced in his school work?
4. (*a*) To what extent is the teacher responsible for the health of the school?
   (*b*) Why should "Swat the Fly" be a slogan in every country school?
   (*c*) What specific plans can be used to rid the school room of flies? (See page 69, "Everyday Pedagogy.")
5. (*a*) Is it possible for the teacher to discover physical defects in children, and what may be done to remedy same when discovered?
   (*b*) When there are defects of the eye or ear, what ought to be done at once?
   (*c*) How may adenoids be detected, and how remedied?
6. (*a*) What morning exercises do you have in your school?
   (*b*) What should be the purpose of any exercises held in the morning before commencing the regular work of the day?

7. What should be the character of all first grade work in arithmetic, and what concrete methods may be used to impress the idea of number on little children?

8. (*a*) What is the purpose of reading?

(*b*) What are some of the best methods to be used in teaching primary reading?

(*c*) Explain the "Beacon Method" of teaching primary reading.

8. Can boys and girls be trained to use the dictionary? How?

LESSON VI.

ART OF CLASS MANAGEMENT.

1. Describe the salient features of a class not well managed and the apparent results made manifest.

2. Describe the conditions of a school room where the class is properly managed and what are the probable results from such?

3. The statement has been made that the teacher is largely responsible for the excellence of good class management or for a lack of same. Is this true? Explain.

4. Why is it absolutely necessary that a teacher have a thorough academic education before she attempts to teach the grades of the public schools with any degree of comfort or satisfaction to herself?

5. Why must a teacher have a thorough professional education before she can teach successfully any school, and render satisfaction to pupils, parents, school boards, and supervising officers?

6. Why is a program for recitations and study periods necessary in any school?

7. Make a tentative program for a rural school, knowing the following conditions:

No. of Pupils in First Grade	4
No. of Pupils in Second Grade	5
No. of Pupils in Third Grade	4
No. of Pupils in Fourth Grade	5
No. of Pupils in Fifth Grade	4
No. of Pupils in Sixth Grade	4
Total in grades	26

8. What special tactics should be used to secure individual and class attention at all times?

9. What should be the proper posture of pupils when recit-

ing? Is it necessary to be particular in reference to the slovenly positions many pupils assume while reciting? Why?

10. Should special attention be given to the assembling and dismissing of classes? Should military precision be insisted on until the same becomes a habit? Why?

LESSON VII.

FIRST DAY OF SCHOOL.

1. What is the proper way to proceed in an effort to secure a school in a certain district?

2. Should there be an indiscriminate filing of applications? Why?

3. Having been selected by some particular board to teach a certain school, what essential things may be learned by having a conference with the preceding teacher, or with the County Superintendent?

4. Having before you the register of the former teacher, which shows all promotions and classifications, can you now make a tentative program and seating schedule for your school? Why?

5. What troubles may be avoided by judiciously selecting a boarding place?

6. The teacher knowing that she is being "weighed in the balance," why should she be desirous of making a good impression the first day?

7. Can pupils take a teacher's measure the first week of school and discover the ability to use or lack of ability in the following: correct and accurate use of English, self-control, punctuality, tact, precision, and general information?

8. What should be the attitude of a teacher towards the social conditions of the district, having a fair knowledge of all matters before your first day of school?

9. What rules and regulations must be established on the first day of school and should they appear statutory and arbitrary, or self-imposed and necessary? Explain.

LESSON VIII.

EXAMINATIONS AND PROMOTIONS.

1. When should an examination be held, and what should be its form—written or oral? Who should hold the examination?

2. Has an examination a disciplinary effect on teacher as well as on the pupil? Explain.

3. Who should make out the questions for a final test in any subject?

4. What fundamental principles should a teacher keep in mind, when preparing a set of test questions for a final examination?

5. Why should promotion depend upon grades made in daily class work and examination tests, averaged together?

6. Why is the teacher's judgment of the ability of a boy or girl to do more advanced work a better criterion upon which to base advancement of a pupil than an array of figures as the result of daily or term tests?

7. What is the moral duty of a teacher in completing all school records? Is it justice to pupils that all records be made? Explain.

LESSON IX.

METHODS IN TEACHING.

1. What is meant by a method in teaching?

2. Is there a correct method of teaching Spelling? Illustrate.

3. How should Geography be taught, and what physical appliances are quite necessary to properly illustrate many of the problems to be found in this branch of study? What apparatus or helps may pupils devise (if encouraged to do so) that may be used with good effect in this branch?

4. How should History be taught in both the lower and the higher grades in the public schools? Show not only the practical value, but the cultural value of history.

5. What method or methods should be used in teaching Reading? It is the judgment of many supervising officers that this branch is quite poorly taught in the public schools of our country, and that many boys and girls leave the schools before they have acquired the habit of good reading. Who is to blame for this condition? To what extent shoull we hold the home, the companionship of the pupil, the teacher, responsible for this?

6. When should number work be commenced in the grades, and what caution should every teacher of primary children keep in mind when instructing little ones? Why is oral and mental analysis of primary problems much better for children than written work? Is there too much time given to the abstract phases of arithmetic in our schools, and too little time given to the concrete processes that appeal to the understanding of children? Explain.

LESSON X.

THE PERSONALITY OF THE TEACHER.

1. Effect of physical appearance and health.

2. How does the cheerfulness, the promptness, the punctuality, the industry, the integrity, the personal habits of a teacher influence the pupils of a school?

3. In what way does intellectual capacity enable a teacher to understand the nature of children, and thereby become more sympathetic in dealing with them?

4. Why does sincerity, honesty, self-control, enthusiasm and tact in the teacher have such a powerful influence in the school room?

5. What should be a teacher's professional equipment?

6. What should be a teacher's social equipment?

7. What effect does neatness, cleanliness, tidiness, a well modulated voice, an accurate and refined use of the English language have upon children when these virtues are all manifest in the teacher?

LESSON XI.

PURPOSES OF INSTRUCTION.

1. Why do the people of New Mexico willingly spend millions of dollars each year to develop a system of public education that shall adequately meet the needs of all its people, and produce a well defined purpose which gives social, civic, commercial, industrial, and educational advantages to all concerned?

2. Why has instruction a commercial value, and should this be impressed upon pupils?

3. Why has education a cultural value, and state why this should be impressed on students?

4. Is the school a miniature form of government where boys and girls learn to be obedient to those in lawful authority and where they learn efficiency and industry? Explain.

5. Show that the public school system of this nation is at the foundation of all our civil and religious liberties and that intelligence and morality must be the chief corner-stones of our national fabric if our liberties are to be perpetuated.

6. How may a teacher stimulate a community and exert moral influence that will better conditions in school and community?

7. How may a teacher, as a part of her instruction, show that the so-called evil tendencies of environment and heredity may be largely overcome, and children coming from homes or localities where unfavorable conditions prevail, may develop into law-abiding, liberty-loving and God-fearing young citizens, despite their surroundings?

8. What should be a teacher's attitude towards those institutions that destroy character—towards Sabbath breaking and other evil or vicious conditions?

9. What should be a teacher's attitude towards the influence of the home and the church?

LESSON XII.

HOME CONDITIONS AFFECTING A CHILD'S PHYSICAL CONDITION.

1. What of the child's food in the home? Is his method of eating varied? Does he eat slowly? Is his food well masticated, and easily digested? Is his food well cooked? Does he eat at regular periods? Does the teacher ever admonish pupils to eat simple and nourishing food and to avoid high seasoned food and stimulants like tea and coffee?

2. Does the child's skin have a healthy glow? Is the child always cleanly in body and clothing? Does the child change his underclothing at short and regular intervals? Does he change his underclothing at night? Does he properly care for himself when going from school room into the open air in cold weather, by putting on extra wraps? Are his neck, legs and chest protected by proper woolen clothing in winter? Is the child taught to keep his feet dry at all times? Is the child bathed from once to twice a week in water neither too warm nor too cold? Does the teacher constantly admonish pupils, in a kind and sympathetic manner, in reference to these matters? What of the manner of a child's breathing? Does the child get plenty of healthful exercise in the open air?

3. What of the child's sleep? The child from six to eight years old needs eleven to twelve hours' sleep. The child from nine to eleven years old should have ten or eleven hours. A child from twelve to fourteen years should get nine to ten hours' sleep each day. Does the child of a specific age get sleep enough? Does he have plenty of fresh air properly tempered? Does he eat only easily digested food before going to bed? Does he go to bed free from mental excitement or worry?

4. Has the child been taught in the home the absolute ne-

cessity of going to closets and toilets at all intermissions, that he may not be troubled with kidney, bladder or bowel trouble as the result of neglectfulness?

LESSON XIII.

SCHOOL CONDITIONS AFFECTING A CHILD'S PHYSICAL NATURE.

1. What of the school site—is it on high ground, well drained? Is it away from unnecessary noise and conditions that distract? Is it removed far enough from barns, garbage, heaps and other bad smelling places that the odors will not vitiate the atmosphere of the school?

2. What should be the proper heating and ventilating process used in the schools? If the proper temperature of a school should be from 65 to 70 degrees for healthy pupils, how should delicate pupils dress who need temperatures ranging from 70 to 80 degrees? Since a pupil needs about 250 cubic feet of air each hour, a room 14x25x30 feet would accommodate 42 pupils for one hour. If there is not an automatic process for furnishing the exchange of fresh air, what temporary or artificial process must the teacher use?

3. Need for medical inspection of schools. Need for mouth inspection. Need for eye and ear inspection. Would these inspections arouse watchfulness, carefulness and cleanliness in the home and school? Need for pure water.

4. What care should a teacher take in regard to contagious and infectious diseases?

LESSON XIV.

HABIT.

1. What is the nature of habit? Can a habit be inherited? What is the unconscious nature of habit? What is the physical nature of a habit? What is the nature of reflex action to training and habits?

2. The whole tenor of one's life is a resultant of physical, mental and moral activities which constitute habit. Explain.

3. Can one judge of the goodness or badness of his own habits, and weigh himself in the balance and "see himself as others see him?" Try it.

4. Dr. McKeever in his book, "Psychology and Higher Life," suggests a card whereby pupils may judge themselves and give a

rating. Each member of the class is asked to fill out two cards, one for himself and one for his teacher. The card is as follows:

1. Name.....
2. Age..... Height..... Weight..... Complexion.....
3. Temperament: (*a*) Choleric, (thinks quickly, feels strongly); (*b*) Sanguine, thinks quickly, feels weakly); (*c*) Phlegmatic, (thinks slowly, feels weakly); (*d*) Melancholic, (thinks slowly, feels deeply.)
4. Sociability of High Degree, Medium, Excessive, Select.
5. Order: Excellent, Good, Medium, Poor.
6. Punctuality: Good, Fair, Careless.
7. Persistence: Strong Medium, Intermittent, Weak.
8. Self-Control: Strong, Fair, Weak.
9. Favorite Study: Most Difficult Study.
10. Ideal Vocation.
11. Defects (as a student.)
12. Original Motto or Resolution.

On the reverse side of this card was printed the following, which blanks the pupil was required to fill:

1. The Most Desirable Possession.....
2. The Most Beautiful Color.....
3. The Most Suggestive Word.....
4. The Most Delightful Sound.....
5. The Most Beautiful Scene.....
6. The Most Delicious Things to Eat.....
7. The Most Fragrant Odor.....
8. The Most Pleasing Object to Touch.....
9. The Most Amiable Character.....
10. The Most Beautiful Sentiment.....

Do the answers above, (many of which were given impulsively), reveal, in any measure, the habits of thought or life tendencies?

5. Is it true that a child of fourteen years of age has life habits so firmly fixed that they cannot be changed without great effort? Explain. Fourteen years of age is the time when the normal boy or girl finishes the first eight grades of public schools. Does this fact make it essential that he should be well grounded in good habits by that time?

6. Is it true that character is formed by the number and quality of one's habits?

LESSON XV.

INDUSTRIAL WORK.

1. Why should all teachers, whether in rural or city schools, interest themselves in this branch of school work?

2. What special interest can teachers in rural schools take that might arouse boys and girls to a sense of their ability to enter contests in gardening, crop raising, pig raising, calf raising, chicken raising, that would result, not only in pleasure to them, but great profit as well?

3. Can boys and girls be inspired to learn cooking, sewing, mending, darning, and other useful arts through the pleasure and profit that will come to them as a result of knowing that they can be a great help in maintaining the family? Is it of just as much importance that the boys and girls in the cities and towns learn these industrial arts as the boys and girls in the country?

4. What problem is a boy against when you furnish him with lumber and nails, screws, hinges, locks, etc., and tell him to make you a box of *certain* dimensions? Will all of his errors rise up against him? Is this true of the problems of his text?

5. What problem confronts a young girl when you place in her hands sufficient material and accessories to make her a dress, she having access to all necessary charts, patterns or models, and having been taught how to use them? Does it matter whether or not the dress *fits?* Unlike the problems of the text book when errors are made they may be quickly erased, but the error made in making the dress must be *worn.*

6. Is it an easy proposition for a young girl to be sent to the kitchen by her mother and told to prepare a meal? Warm biscuits, fried potatoes, apple sauce, tea cakes and chocolate are to be a part of the menu. Does it take as much ability to cook these things well as to get a lesson in algebra or geometry? Is a young girl entitled to praise who can do this cooking well, as much so, as if she could skilfully play a piece of music on the piano or translate faultlessly one hundred lines from Virgil?

7. The Industrial Arts teach accuracy and efficiency, and that is why they are being emphasized in all schools today.

LESSON XVI.

VOCATIONAL TRAINING.

1. Does the average school of today fit the average boy for his real life work? Give reason for your answer.

2. Why has there been such an universal demand for a system of education that would harmoniously develop the head, the heart and hand?

3. Why has there been so much said in regard to the matter of vocational efficiency being the basis of all education?

4. The industrial work now being done in the schools of New Mexico is the most popular phase of work now done. Why?

5. Why is a vocational guide and counsellor of such vital importance at the present time?

6. To what extent does the "bread and butter" motive enter into a choice of vocation, and what may be done to properly adjust conditions?

7. Is there an established relation between true culture and social efficiency? Explain.

8. Why should "Home Making" occupy a large part of a girl's time, while she is doing her industrial and other work in school, and what are the essential factors of successful home-making?

9. What are the economic and social effects of a genuine vocational spirit? Does it dignify labor? Does it establish a new type of ethical education? Is it the true aim of all education?

LESSON XVII.

RECREATION AND PLAY.

1. Why is play essential to the proper development of the mental, physical and moral activities of the child?

2. Should children be taught to play certain games correctly, or should they be left to learn the "rules of the game" from older children?

3. Should children have certain places set apart for their play grounds, not only around the home, but on the school grounds? Explain.

4. What improvements are necessary to be made around the average rural school grounds, in order that good play grounds might be established?

5. Which of the following games could be established with necessary equipment in many of the districts of the state: Base-ball, tennis, croquet, swings, basket ball, running track, horizontal bars, and the probable cost of equipment of each?

6. What games are the most valuable in developing self-control, accuracy, skill and precision, muscular strength, and activity?

7. What games might be organized for little children and correctly played under the direction of the teacher? ("Play and Recreation"; Curtis.)

8. The Standard Athletic Test of New York City is that "Every boy under thirteen who can run sixty yards in eight and three-fifths seconds, chin a bar four times, jump five feet nine inches, standing, shall have the standard button of the League." Is this too high a standard to set for New Mexico boys?

9. Should the recreation and play for girls be similar to that of boys? Explain.

10. Can the rural school home and grounds be made the great social and recreation center in country districts? How?

11. Is play a preparation for life?

12. Was play the basis of Froebel's and Pestalozzi's reforms in teaching?

13. Is play the basis of the modern Montessori plan for teaching small children?

LESSON XVIII.

RURAL LIFE AND THE RURAL SCHOOL.

1. (*a*) What is the rural school problem, and what is being done to solve the same?
   (*b*) What are the advantages and disadvantages of rural school life?
   (*c*) Compare the advantages and disadvantages of rural school life with the advantages and disadvantages of city school life.
2. (*a*) What are some of the most marked defects in the average school buildings and their surroundings?
   (*b*) What can be done to have better arranged buildings, better heated buildings, better ventilated, and better lighted buildings?
   (*c*) What influence should the teacher exert in having the walls of a school building beautified and adorned?
   (*d*) What class of pictures would you place in your school, that they might have the proper influence on children in country schools?
3. (*a*) What has been the great problem of supervising rural schools, and what efforts are being put forth to remedy it?
   (*b*) What is meant by consolidation, and in what particular localities would it be advisable to use same?

4. (*a*) Can a course of study be followed in a rural school?
   (*b*) What is the object of having a course of study?
   (*c*) Why follow the suggestions and outlines of a course of study?
5. (*a*) What is meant by a social center in a country district?
   (*b*) What activities are for the advancement and development of school and community?
   (*c*) To what extent will the proper activities in a rural district counteract the tendency and desire of children and others to go to the cities to live?
6. (*a*) What is meant by the "Rural Renaissance?"
   (*b*) What is meant by the "National Commission on Rural Life?"
   (*c*) What is meant by "Educational Extension Work?"

LESSON XIX.

JUDGING THE EFFICIENCY OF TEACHERS.

1. Is it possible for teachers to give themselves the proper rating in any pedagogical excellencies or deficiencies if they use the term of comparison, as poor, medium, good and excellent?

2. Could you give the conductor and instructors of the Institute a rating if you knew upon what points to grade?

3. Ask your County Superintendent to give you a rating on the following schedule, marking an oblique cross in the column indicating your rating.

Efficiency Record of John Smith.

		Poor	Medium	Good	Excellent
1.	General Appearance		x		
2.	Health	x			
3.	Modulation of Voice				x
4.	Capacity for Work		x		
5.	Apparent Industry			x	
6.	Self Control				x
7.	Accuracy of Statements				x
8.	Academic Preparation				x
9.	Professional Preparation				x
10.	Knowledge of Child Nature			x	
11.	Interest in School and Community			x	

		Poor	Medium	Good	Excellent
12.	Ability to Secure Co-Operation of Parents				x
13.	Professional Growth and Interest			x	
14.	Preparation of all Work			x	
15.	Grasp of Sanitary Condition				x
16.	Proper Heating, Lighting and Ventilating		x		
17.	Apparent Neatness in All Things		x		
18.	Governing Ability			x	
19.	Definiteness in Teaching			x	
20.	Ability to Stimulate and Inspire				x
21.	Care in Assignment of Work			x	
22.	Ability to Correlate Work			x	
23.	Apparent Advancement of Pupils			x	
24.	General Tone of the School			x	
25.	Influence on School and Community			x	

4. If we interpret Poor—1, Medium—2, Good—3, and Excellent—4, then John Smith's rating is 77 per cent. Can you equal that?

LESSON XX.

A TEACHER'S LIBRARY.

The following list of books might be consulted in studying the lessons on School Management.

The Arabic numbers in parentheses, following the author's name, indicates the lesson of the course to which the book best applies.

1. School Management, by Dutton (1)
2. The Recitation, by Hamilton (2) (9)
3. Psychology of Conduct, by Schroeder (3)
4. Discipline as a School Problem, by Perry (3)
5. Psychology in Daily Life, by Seashore (3)
6. The Teacher and the School, by Colgrove (1)
7. How to Study and Teaching How to Study, by McMurray, (4) (2)

8. School Credit for Home Work, by Alderman (4)
9. Everyday Pedagogy, by Lincoln (5) (2) (1) (7)
10. Teaching the Common Branches, by Charters (9)
11. The Making of a Teacher, by Brumbaugh (10)
12. The Evolution of the Teacher, by Perry (10)
13. Talks on Psychology and Life's Ideals, by James (10) (14)
14. Vocational Guidance, by Gillette (15)
15. Psychology and Industrial Efficiency, by Munsterberg (15) (16)
16. Rural Life and the Rural School, by Kennedy (18)
17. Psychology and Higher Life, by McKeever (14)
18. Psychologic Method in Teaching, by McKeever (9) (10)
19. Everyday Problems in Teaching, by O'Shea (1) (3)
20. The Personality of the Teacher, by McKenny (10)
21. Play and Recreation, by Curtis (17)
22. Play in Education, by Lee (17)
23. Practical Conduct of Play, by Curtis (17)
24. School Discipline, by Bagley (3)
25. The Art of Study, by Hinsdale (4)

Let the instructor name five books from the above list, that he considers the most important, and give reasons for his choice.

PEDAGOGY

FIRST GRADE.

Prepared by Supt. John Milne, Albuquerque, N. M.

The Recitation, Hamilton; The Teacher and the School, Colgrove; How to Study, McMurry; Vocational Guidance, Puffer; Play and Recreation, Curtis; Sociology and Modern Social Problems, Elwood, Rural Life and the Rural School, Its Method and Management, Culter and Stone, are the books upon which the outline is based.

LESSON I.

1. Enumerate and discuss professional qualifications.
2. What personal qualifications are necessary?
3. Discuss preparation necessary for each day's work.
4. How may a teacher destroy her usefulness by indiscreet acts outside the school room?
5. What community activities should a teacher avoid?
6. Discuss a teacher's "Personality."
7. Why is teaching experience required by many schools?
8. Of what advantage is executive ability? Interest in teaching?
9. Of what value to the teacher is the home play of the child?
10. Vocational Education is said to be the basis of all education. Explain.
11. Discuss the rural school house: site, construction, equipment, etc.
12. What is Sociology? Discuss its relations to education.

LESSON II.

1. Contrast methods employed by teachers of the present day with those of the past.
2. Discuss: Professional Growth while teaching.
3. Co-operation of parents is necessary. Discuss ways of obtaining the co-operation.
4. Pupils must love their school if the best results are obtained. How can the teacher get them in this frame of mind?

5. How can good order be secured?

6. What should a teacher know of a community before she starts to teach there?

7. Every community with a variety of industries should have a vocational guide. Why?

8. How may a teacher supplement the regular course of study so that the needs of a particular community may be better served? Be specific.

9. Enumerate and discuss value of pieces of physical apparatus adapted to home yard use.

10. To know pupils the teacher must play with them. Discuss.

11. Discuss School Hygiene and Sanitation in rural districts.

12. What bearing has the theory of evolution on modern social problems?

LESSON III.

1. Enumerate the essential points of a good course of study.

2. A course of study should be written by the superintendent and teachers who will use it. Why?

3-5. Outline a course of study for the first eight grades in Arithmetic and Grammar.

6. The study of Civics should include a thorough study of "home conditions." Make a list of topics that should be included in such a course.

7. What subjects should be correlated in the course of study? Discuss the method of correlation.

9. Discuss the use of the adopted course of study.

9. Enumerate and discuss experiences that every country child should have. Of what use are these experiences in the child's school work?

10. How does a vocational guide determine the work for which a particular pupil is fitted?

11. What qualifications should the teacher have for rural school work?

12. What bearing has modern psychology on social problems?

LESSON IV.

1. Discuss uses and abuses of objective teaching.

2. To restrain or to stimulate the child's expression should be prominently present in every form of educative activity. Discuss.

3. Discuss the proverb, "A process is never known until it is practiced."

4. Each lesson plan should consider:

(*a*) What the child already knows.

(*b*) What part of the lesson must be taught.

(*c*) Methods to be used.

5. The teacher should "check up" work frequently so that she may know the weak places in her own teaching.

6. Discuss the inductive and deductive forms of teaching.

7. In everything that is to be done well by both pupils and teacher, interest and attention must be present as essential conditions.

8. Three-fourths of all teaching is drill, which involves the principle of habit. Give the stages of procedure in habit forming.

9. Discuss different occupations as you would with a boy or girl who comes for advice regarding life work.

10. Discuss size and arrangement of school grounds.

11. Discuss the first day's work for the rural school. The daily program.

12. What is the function of the family in human society.

LESSON V.

1-8. Discuss Chapter XI of "The Teacher and the School," by Colgrove. The subject of the chapter is Classification, Grading and Promotions.

9. Make a list of the pieces you would recommend for the play ground equipment.

10. Discuss the qualifications of a good foreman in the different industries.

11. Discuss the methods of the recitation.

12. What forms of the family are there? Trace the historical development of the family.

LESSON VI.

1-5. Enumerate and discuss the principal factors in study.

6. Outline a method of teaching children how to study.

7. Discuss practical suggestions for teaching children to find specific aims for their study.

8. Discuss the importance of moderation in demands made upon children.

9. What is the relation of habits, character and school standing to employment?

10. Discuss the advantages of organization in play.
11. How can pupils be taught to study?
12. What are the problems of the modern family?

LESSON VII.

1-8. Discuss the aims of the recitation under the following headings:

(*a*) To test preparation.
(*b*) To aid in comprehending the subject matter.
(*c*) To discover errors.
(*d*) To arouse mental activity.
(*e*) To test what was previously taught.
(*f*) To test teacher's power.
(*g*) To test pupil's view of subject.
(*h*) To stimulate and direct study.
(*i*) To cultivate habits of attention.
(*j*) To arouse self activity and the power of independent research.

9. What are some of the essential factors of successful home making?
10. Discuss the value of exhibits.
11. Discuss school government—its importance, punishments, incentives.
12. What are the laws of the growth of population? What influences affect the increase of population?

LESSON VIII.

1. "The three foundations of learning are seeing much, suffering much, and studying much." Discuss the quotation.
2. Enumerate and discuss favorable conditions for study.
3. What are the objects of study?
4. The three stages of study are apprehension, comprehension and application. Discuss.
5. Discuss wrong methods of study.
6. Discuss correct methods of study.
7. What will you do with pupils who are not prepared? Discuss fully.
8-9. Discuss the advantages of studying mills, factories, farms and stores.
10. Discuss the "Country Life" movement.
11. What need is there of ethical teaching? Discuss methods.

12. Hold a debate on the subject of whether or not immigration should be restricted.

LESSON IX.

1. Discuss the location and general plan of the school building.

2-5. Make up lists of furniture, apparatus and library books that you would recommend if you were in charge of a one-room country school.

6. What difficulties may be encountered if the teacher is not tactful in handling patrons?

7. Discuss the old and the new ways of conducting the school.

8. How far shall the teacher co-operate with the ideals and standards of the community?

9. Discuss various kinds of recreation for the country girl.

10. Discuss: "City versus Country work!"

11. What are the special duties and opportunities of rural school teachers?

12. Distinguish between poverty and pauperism. What are their causes? Discuss remedies.

LESSON X.

1-4. Every teacher should be identified with some sort of community work outside of the school. Discuss advantages of such work to the teacher. To the community.

5. Discuss the advantages and methods of introducing self government in the school.

6. How would you attempt to mold public opinion in favor of industrial work in the schools?

7. Credit is sometimes given for work done in the home. Discuss the merits of such a plan.

8. Discuss the organization of social centers.

9-10. Discuss the vocational, social and economical aspects of the mechanical problem.

11. How can rural school conditions be improved? Discuss county and state administration, consolidation of schools, transportation of pupils, etc.

12. Have several teachers make special reports on Chapter XVI in Sociology and Modern Social Problems, "Education and Social Progress." Discuss.

PSYCHOLOGY

FIRST GRADE.

Prepared by Frank Carroon, East Las Vegas, N. M.

REFERENCES.

Read: Introductory Psychology. Ginn & Company.

Tichener: A Beginner's Psychology. Macmillan Company.

Tichener: A Primer of Psychology. Macmillan Company.

Angell: Psychology. Henry Holt & Company.

Oppenheim: Mental Growth and Control. Macmillan Company.

James: Psychology, 2 vol. Henry Holt & Company.

Seashore: Psychology in Daily Life. Henry Holt & Company.

Seashore: Elementary Experiments in Psychology. Henry Holt & Company.

Munsterberg: Psychology and the Teacher. D. Appleton & Company.

Probably the most difficult task of the teacher who introduces the student to the study of Psychology is to get him to understand the distinctively mental nature of the subject-matter of Psychology. Young students, especially, are remarkably unskilled in the act of introspection. One of the best methods of calling attention to the fact that mental phenomena and not objective phenomena are to be considered is by using various striking cases of illusion. Some of the most astonishing forms of optical illusions may be found in Seashore's Psychology and Daily Life, opposite page 160. It would be well if the teacher might have this book for use in the Institute.

Below will be found a series of very simple experiments in sensation designed to bring out this point. Special attention is called to Experiment No. 2.

EXPERIMENT I.

AFTER-IMAGES.

1. *Positive After-images.*

Look at a lighted lamp for half a second. Then instantly close the eyes or turn from the light. The positive image of the light is readily seen.

2. *Negative After-images.*

Place a black square on the upper half of a large sheet of white paper. Fixate the center for about fifteen seconds. (The fixation-time varies for different individuals.) Then look at the lower half of the white sheet. A bright square will be seen which is the negative after-image. Interesting results may be obtained by substituting colored squares for the black square.

EXPERIMENT II.

Inversion of the Retinal Image.

Make a pinhole in a card, and hold it toward the light about ten centimeters from the eye. Holding the head of a pin very close to the eye in front of the pupil, look through the pinhole. The pin will be seen inverted back of the card. Pierce five holes close together, and proceed as before. How many pins do you see?

EXPERIMENT III.

Accommodation.

Pierce two pinholes in a card about a millimeter apart. Hold the end of a ruler against the cheek below the right eye (closing the left eye), and look through the two pinholes. Slide a pin (point upward) along the ruler, moving it back and forth until the nearest point is found at which the pin can be seen without a blur. This is the near-point of vision. Hold the pin at the point just determined and place another pin about twenty centimeters beyond it. Notice that when the eye is focused for the near pin, the other appears double, and vice versa. Move the distant pin toward the near one, finding how close it must be brought before both can be clearly seen with a single accommodation. Measure the distance. This is called the line of accommodation.

EXPERIMENT IV.

Muscular Sensations of Position of the Eye as Affecting Perception.

Roll a sheet of paper into a tube about one inch in diameter. Hold your left hand about twelve centimeters in front of your face. Placing the tube in front of the right eye, lean it against the left hand and point toward some distant object. Look with both eyes at the object. The object and a circular section of its surroundings will be seen through a hole in the palm of your hand.

EXPERIMENT V.

Auditory Space—For two persons.

Blindfold and seat the observer in a quiet room. Standing on one side of the observer, reach out both arms and snap two coins together about fifty centimeters from the center of the head, being careful to avoid all movements of the body and rustling of garments. This sound is to be produced three times from each of seven positions, 45 degrees apart in the median plane of the body: up, up-front, front, down-front, down-back, and up-back. The trials should be distributed as they might occur by chance. The observer reports in which of the seven directions the sound is heard. Figure how many of the twenty-one answers are correct, how many are 45, 90, 135, and 180 degrees wrong, respectively.

EXPERIMENT VI.

Tactual Localization of a Point.

Mark off an area about fifty millimeters wide and one hundred millimeters long on the volar surface of the forearm. Make a similar plot in your note book. Working within this area, let the observer close his eyes while his wrist is touched lightly with a pencil point. Then with his eyes open have him locate the spot by touching with another pencil. Mark the relative positions of the two spots on the plot in your note book, connecting them with a light line to indicate the amount of error. Mark the dots S (stimulus) and L (location), respectively. Make ten or fifteen trials.

EXPERIMENT VII.

Recognition of Direction.

(It is especially desirable that the subject should not know the purpose of the experiment.) Let the subject stand with his back against the wall. Choose a point on the opposite wall about the height of his shoulders. Let him look at it and then close his eyes. Then require him to point to it as exactly as possible with a rod held symmetrically in both hands. He will probably make little error. Now repeat the experiment, but this time have the subject turn his head as far as possible to the left after closing his eyes, taking pains to keep his shoulders square. Repeat with the head turned to the right. It will be observed that the subject points too far in the direction opposite to that of the turning of the head.

An interesting variation of this experiment is to have the subject walk toward the designated object, keeping his shoulders square, his eyes closed, and his head turned to one side. He will walk more and more too far toward the side away from which his head is turned.

LESSON I.

THE NATURE OF PSYCHOLOGY.

1. State the problem of psychology. How does it differ from physiology?
2. What is a mental fact as distinguished from a physical fact?
3. Sketch the various fields of psychology, as animal psychology, child psychology, abnormal psychology, psychology of history, psychology of salesmanship, social psychology, etc.
4. State the values which *psychology* has for the teacher.
5. Discuss the methods of psychology.
   (*a*) Introspection.
   (*b*) Observation.
   (*c*) Experiment.
6. What are the objective signs of mind?
7. What is the relation of psychology to education?
8. Of what use may a study of psychology be to the teacher outside of his professional life?

LESSON II.

CONSCIOUSNESS.

1. Define consciousness. Distinguish it from conscience.
2. What is the function of consciousness?
3. Show how consciousness appears in the life of the individual and assumes control of action.
4. Discuss the biological theory of mind as "the master device for making adjustments to the environment." Give examples of such adjustments.
5. What other devices than mind do we have for adapting ourselves to our surroundings?
6. Show how the mind is hemmed in a curious way between the sense organs on one side and the muscles on the other.
7. What is the psycho-motor arc?
8. Show that consciousness could not appear without the assistance of sense organs. *"Nihil in intellectu quor non prius in*

sensu." Show that one could never know the meaning of any word descriptive of a color without a sense of vision, or of a sound without the sense of hearing, etc.

LESSON III.

THE PHYSIOLOGICAL BASIS OF MIND.

1. Discuss the body as the envelope of consciousness through which the mind becomes aware of the external world.
2. Discuss the brain as the particular seat of the mind.
3. Illustrate the co-ordination of mind and brain. Give various examples.
4. Discuss the theory of psycho-physical parallelism; namely, that for every mind change there is a corresponding and accompanying brain change.
5. Discuss the function of the cerebrum.
6. Define: cortex, neurone, axone, sensory and motor nerves; spinal cord, etc.
7. What is meant by reaction time?
8. Give all that happens in the proper sequence from the time a stimulus is applied to the nerve ending until conscious action takes place.
9. Define and illustrate automatic action; reflex action; spontaneous action; habit.
10. Contrast these forms of action with conscious action. Give examples.

LESSON IV.

ATTENTION.

1. Define and discuss attention.
2. Discuss the nature and forms of attention.
3. What is the biological function of attention?
4. Show
   - (*a*) That attention secures a vivid and clear image of the object of thought.
   - (*b*) That it makes the image permanent.
   - (*c*) That the object of thought develops its relation to other things during prolonged attention.
   - (*d*) That, if continued, attention always results in action.
5. Discuss the kinds of attention—voluntary, involuntary, nonvoluntary.

6. Show the rythmic nature of attention and that change is the primal law of its activity.

7. Illustrate the discriminating power of attention, showing that attention is selective. Is it possible to study diligently in a noisy schoolroom?

8. Illustrate its synthetic power.

9. What is the importance to the teacher of the laws of attention?

10. Formulate a set of rules according to which the work of the school may be made to conform to these important laws of attention, and secure the greatest results in the education of the child.

LESSON V.

SENSATION.

It would be well for the instructor to secure some simple text in experimental psychology and perform a few of the simpler and more striking experiments in sensation, in order to create the scientific atmosphere and shift the emphasis of the attention of the class from memorizing to perceiving and thinking.

1. Define sensation.

2. Discuss the relation of attention to sensation, showing the effect of removal of attention from any stream of sensations.

3. What service does sensation perform for the psycho-physical organism?

4. Define sense organ. Show that a sense organ is a peculiar modification of the peripheral end of an afferent nerve by which the nerve is made capable of receiving excitations from some external stimulus. Define sense. Study the mechanical structure of some sense organ.

5. Upon what basis is the classification of sensation made.

6. Make an outline of the various classes of sensations, beginning with the two main classes, bodily or organic sensations, and sensations having their origin in the external world.

7. Explain what is meant by maximal and minimal intensity of sensations.

8. State and illustrate Weber's law of sensation, giving the fractions for sight, touch and hearing.

9. What is the threshold of sensation?

10. What is meant by the local sign of a sensation?

11. Discuss the fusion and discrimination of sensation.

LESSON VI.

PERCEPTION.

1. Define perception and show how it utilizes sensation.
2. Point out the part played by past experiences in perception.
3. Give illustrations to show that perception *de novo* is an impossibility, and that every perception involves a memory.
4. Show how perception is a synthesizing or unifying activity, assembling a host of sensations, both present and former, in to one meaning.
5. In what sense does perception furnish materials for memory?
6. Show that perception determines motor activities.
7. Show that the simplest acts are initiated and presided over by perception.
8. What is a percept? An image?
9. Illustrate the following differences between a percept and an image:
   (*a*) In vividness.
   (*b*) In definiteness of outline in details.
   (*c*) In permanence.
   (*d*) In objective reference.
10. What is an illusion of perception? By what test may we ascertain whether an experience is a true perception or an illusion?
11. Give instances of illusions of sight, hearing, touch, etc.

LESSONS VII.

MEMORY. IMAGINATION AND HABIT.

1. What is memory.
2. Discuss the nature and function of imagery.
3. Show that memory utilizes sense perception as sense perception utilizes sensation.
4. What is the part played by perception in memory?
5. What is organic memory? Is it true that the wisdom of past experience may remain treasured up in an unconscious way in the physical organism?
6. Distinguish this organic memory from conscious memory.
7. Show how the memory is dependent upon the laws of association which were acting at the time when the product of memory was a perception.

8. Discuss:

(*a*) The law of contiguity.
(*b*) The law of similarity.
(*c*) The law of contrast.
(*d*) The law of cause and effect.

Show that the last three are but modifying influences affecting the working of the chief law of association, contiguity.

9. What is the effect of frequency, recency, intensity, contextual association, emotional association of a given experience upon its permanence in memory?

10. Do the laws of association discussed under No. 8 apply to the functioning of imagination as well as to memory? Discuss the relation of imagination to memory, showing that the former is a mode of reproduction of past experiences of the memory, but different in the degree of freedom with which the elements of the past experience are used.

11. Discuss habit as a factor in memory and imagination. Is it also a factor in perception?

12. Do we have habits of thought?

13. Show how the past is an increasing factor in determining our lives in the present through the law of habit, and how our freedom is being constantly circumscribed. Is this a necessary and beneficent law?

14. What matters should be reduced to habit as quickly as possible?

LESSON VIII.

THE THOUGHT POWERS.

1. Conception.

1. What is conception? Distinguish between the process and the result. Define a concept.

2. Discuss the function of conception, showing its biological value.

3. Illustrate how through conception we are able to synthesize into one idea the essential meaning of a long train of experiences.

4. What are the incentives to the development of conception?

5. Discuss ways in which the teacher may assume control over this process.

6. What has one's concepts to do with his efficiency?
7. Explain such a phenomenon as spiritual re-birth.

2. Judgment.

1. What is judgment?
2. Analyze a judgment.
3. Show how judgment makes use of sensation, perception, memory, imagination and conception.
4. Show how clear judgment is an essential to personal efficiency.

3. Reasoning.

1. Define reason as a process of relating judgments about some problem with the purpose of solving the difficulty presented.
2. Select and analyze a process of reasoning involving a practical problem thus:
   - (*a*) The precipitation of a difficulty in our adjustment.
   - (*b*) The conception of the question or problem involved in the resolution of the difficulty.
   - (*c*) The search for standards or for concepts by which to resolve the question. (Deliberation.)
   - (*d*) The closing of the deliberation by finding a standard or a principle which solves the difficulty.
   - (*e*) Action in the light of the solution found.
3. Apply this same analysis to a difficulty involving reasoning in the province of the moral life.

LESSON IX.

AFFECTION AND ACTION.

1. Define affection and distinguish from sensation.
2. Classify affective states into sensuous, intellectual, aesthetic, moral and religious.
3. Why do some ideas and experiences please us, while others are painful and unpleasant?
4. Discuss affective states as incentives to action.
5. Discuss emotion as heightened feeling involving racial physiological relations or instincts.
6. What are the four general bodily modes of expression of feeling?
7. Discuss the Lange-James theory of emotion showing the possibilities of its control by the will.

8. Define sentiment; temperament.

9. Show how all of the mental powers thus far discussed function in, and are justified by, action.

10. Discuss the following kinds of action:

(*a*) Physiological, or reflex and automatic actions.

(*b*) Racial, or instinctive actions.

(*c*) Individual, or conscious actions.

11. Discuss the two main divisions of conscious action:

(*a*) Simple or impulsive action.

(*b*) Complex action.

12. What is the result when one acts simply in a situation which calls for complex action?

13. Compare complex action with reasoning, showing that reasoning is involved in some form in every case of complex action.

LESSON X.

GENERAL SURVEY.

1. Why do not animals need as much intelligence as men? What in them takes the place of the higher forms of intelligence?

2. Discuss the theories which have attempted to explain the origin of instincts.

3. Discuss the imitative instinct of children.

4. Account for the presence of harmful instincts.

5. Discuss the nature of suggestion and hypnotic phenomena.

6. Discuss abnormal psychic phenomena as due to the disintegration of associations which were perfected through the laws of perception, association, memory, conception, judgment, etc.

7. In this way account for amnesia, double personality, and the phenomena of senility.

8. Trace the evolution of the consciousness of self.

9. Explain the feeling of personal identity.

10. Discuss the hypothetical subconscious personality.

MUSIC

Prepared by Helen Chandler, N. M. S. N., Silver City, N. M.

LESSON I.

WHY TEACH MUSIC IN THE SCHOOL?

Much has been done in schools to train the mind and hand of the child, but comparatively little to train the hearts, emotions and feelings, yet these determine actions and mold characters.

In music is a power to build ideals, and awaken a desire for good! It reaches the heart and brings to light one's better nature. It therefore may regulate and control actions as one is awakened to nobler effort and higher aims.

"It should be as natural for the child to sing as to laugh." All children love music and it is indispensable in the school room. A school without music would be a dull work shop.

Discuss its value in the following ways:

1. Educates the senses of hearing and sight.
2. Cultivates the voice.
3. Quickens the memory.
4. Trains in habits of accuracy.
5. Utilizes the power of concentration.
6. Is a means of physical training, by demanding deep breathing, erect posture and creating self poise.
7. Brings a true appreciation of the beautiful.
8. Brings pleasure and joy into the school.
9. Develops co-operation.
10. Develops citizens who love good music, either as listeners or performers, by giving them the necessary training in technical skill.

LESSON II.

SONG MATERIAL AND SELECTION.

(*a*) Text:

Must appeal to child life and suit his age.

Must be worthy of being memorized.

Never use a standard song with other words than the original.

(*b*) Music:

Within range of the child voice.
Strong in rhythm.
Must suit the words.
If the music does not enhance the text it is not good music.
Give the children a variety of songs.

Groupings of Songs:

1. Social—
   Patriotism.
   Home.
   Friendship.
   Love.
   Folk-songs.
2. Religious.
3. Heroism and adventure.
4. Humorous.
5. Play group (activity.)
6. Labor (occupation.)
7. Nature.
8. Animals.
9. Special occasions.

LESSON III.

ROTE SONG.

The basis of all school music is the rote song, or song learned by imitation. All songs used in the kindergarten and first grade, also the majority of those in the second grade, should be taught by rote.

Aims of rote songs:

1. To arouse the children's interest in music.
2. To provide musical experience which shall serve as a basis for technical work.
3. To provide material for the development of ability to sing.

HOW TO TEACH A ROTE SONG.

Preparation: Arouse the interest of the children. Their imagination and interest must be aroused so that their undivided attention will be secured. This accomplished, there will be little difficulty in learning the song. Too little attention, usually, is given to the preparation and the spirit of songs.

Presentation:

(1) Teacher sing the song as a whole, enthusiastically, expressively, with light tone and distinct enunciation. Gestures will attract the interest of the children, but must never be exaggerated, either on the part of the teacher or the children to interfere with the artistic use of the voice or to divert attention from the song itself.

(2) Discuss the text and its meaning—being sure the children understand all the words.

(3) Teach a phrase at a time, e. g.:
Teacher sing first phrase,
Children imitate.
Teacher sing second phrase,
Children imitate.
Teacher sing first and second phases.
Children imitate, etc.

(4) Sing complete song.
Review or drill may come in another lesson.
Do much individual and group singing.

LESSON IV.

STEPS LEADING FROM ROTE SONG TO STUDY SONG.

In development of musical experience from the imitative or rote-song stage to the point of intelligent sight reading of new songs from notation, the pedagogical steps are clearly marked:

1. Teaching rote songs from experience and oral expression.

2. Concentrating attention upon the musical aspect of the song alone by singing the melody with "loo" and observing the repetition of the phrases.

3. Teaching sol-fa syllables to familiar songs by rote as a new stanza, noting that phrases which sounded alike when sung with "loo" have same syllables.

4. Observation of groups of tones, as do-mi-sol, sol-do-mi, re-fa-la, etc., called figures or motives. Ear training in these motives.

5. Presentation of familiar songs to the eye in staff rotation; observing familiar motives and figures in staff pictures. Drill in rapid visualization.

6. Recognition of familiar figures or motives in notation of new songs read by the children with little assistance from the teacher.

In sight reading, do *much* individual work. Nothing strengthens the musical ability of a school as rapidly as strong individual work. Lead the children to feel that they should be able to *sing* alone as well as to *read* alone. Make them feel it is work to be done well, then see that it is done. Soon they will respect music, and as they gain ability to read they will like it. Give a child knowledge and ability and he will like any subject.

Device to aid in quick sight reading:

Study first phrase of the song, close the books, (keeping a finger in the place) and sing. Second phrase in same manner, etc.

LESSON V.

RHYTHM.

The feeling for rhythm is a primitive instinct. Complex rhythms can be easily felt and imitated by young children, and in the early years of his school life his mind should be stored with varied rhythmic experiences. He should express himself in rhythms to form a basis of later study. This experience may come through rote-song singing, rhythmic motions to songs, singing games, dramatizations and folk dances.

Rhythmic motions include marching, skipping, swaying and clapping in time to music.

In singing games, the actions fit the words of the song.

Many songs which tell a story may be dramatized as readily as the stories in their reading lessons.

Much rhythmic development may be derived from the folk games and dances of various countries. The directions for these dances are definitely given with the music and may be easily followed.

In striving to develop a strong feeling for rhythm in the children, be careful that you do not put action into every song they sing. Their attention must not be taken entirely away from the beauty of the melody and when actions are used in songs, the action must never be exaggerated to interfere with an artistic rendering of the song.

LESSON VI.

CHILD VOICE.

Work, first, last and *always* in every grade for good voice quality. Shouting must not be mistaken for singing—children's vocal organs may be so strained by this that their voices will be per-

manently injured. They should have a light, fluty and ringing quality. After a child reaches the sixth year, he has two registers —the chest, or thick, and the head, or thin. The chest register has no place in the school room—only the head, or thin. The child voice is delicate and should sound so—there must be no tightness at the throat. If a song is sung with bad voice quality it may often be remedied by singing the melody with "loo," then trying to keep the same quality when returning to the words.

Breath control is an important factor. Spend little, if any, time on breathing exercises as such, for they have a tendency to become time wasters. The same results can usually be accomplished through the songs themselves, by being sure the children take breath enough at the beginning of a phrase to complete it without a break.

Children should be taught to discriminate between good and bad quality in their own voices. They will soon recognize the difference and will prefer the good.

Children should be taught to speak as well as sing in a musical voice. The teacher may well look to her own speaking voice to determine whether it is well modulated and refined, that she may be the best example for the children.

The teacher should sing *for* her class, and seldom *with* them, because:

(*a*) Her example may not be the best.
(*b*) She needs to listen and cannot do both well.
(*c*) Renders her class dependent and lessens their pride in accomplishment.

LESSON VII.

MUSICALLY DEFICIENT CHILDREN.

Often the musically deficient children are misunderstood. They need careful attention from the teacher and must not be ignored. If a child is normal mentally and physically he can be taught to sing. If a child has defective hearing, defective speech organs, or weak mind, it may not be possible to teach him.

Musically deficient children are those who have more than one tone but a limited range.

Monotones are those who sing or speak in a single tone.

Treatment: Select monotones and put in a "choir" by themselves. Have them listen much to others and not sing all the time. Individual work with them will help most. This requires

much patience on the part of the teacher. Encourage them and never make them feel they cannot sing.

If a child cannot reproduce your tone, begin with his own and gradually work up by means of skips. Some good devices: Calling name, "Bil-ly" (1-8), child responding "I'm here" to same interval. If he cannot reproduce 1-8, try 1-3, or 1-5, but always at first staying on tonic chord. Imitating calls of home or street, as: "Peek-a-boo," 5-3-8; "Toss my ball," 1-1-8, accompany by the action of tossing a ball. Echo game—Child go to one corner of room and "echo" what teacher sings to him.

LESSON VIII.

THE CHANGING VOICE AND PART SINGING.

When the child voice changes, the cause is a change in the size of the larynx. Girls' voices change as a ratio of 5.7; boys', double the size. Great care is needed here.

Some boys' voices change very suddenly—others gradually. Boys are keenly sensitive, abnormally self-conscious and afraid of ridicule at this stage. They should be made to sing within limited range, and if the condition is properly met there is no more need to stop singing than to stop talking or shouting. Avoid music with extreme range.

Boys gradually lose the upper tones and gain lower ones. When the upper tones sound strained, put the boy on the second part, then later on alto, alto-tenor and bass.

Begin the first two-part song with both parts singing together. Do not sing the parts separately at first. The aim is to sing and hear the two parts *together* and they should be trained so from the beginning. Introduce bass clef from the great or eleven-line staff, showing relation between bass and treble clefs.

LESSON IX.

SPECIAL SUGGESTIONS FOR TEACHING MUSIC IN RURAL SCHOOLS.

Every school, whether graded or ungraded, should have a daily music period. Nothing will bring more real joy into the school and tend toward unity and school spirit more than a general music period in which all may participate.

Seat older pupils according to their parts, with the younger pupils in front of the sopranos. The older pupils may read songs by note, the younger ones following from the book, but learning almost entirely by rote.

Be sure always, of erect positions, light voice quality, and plenty of fresh air.

Teach a variety of songs, using many patriotic ones which should be memorized, as "Star-Spangled Banner," "America," "Columbia, the Gem of the Ocean," "Dixie," etc.

Much enjoyment as well as value in establishing part-singing may be derived from rounds and canons.

LESSON X.

SOURCES OF GOOD SONG MATERIAL.

A list of books which may be obtained from any music house or direct from the publishers upon receipt of price, containing splendid song material for rote work:

AUTHOR	PUBLISHERS.	PRICE
Jessie Gaynor, Songs of the Child World, Vols. I & II.	John Church Co.	88c
Fannie Snow Knowlton, Nature Songs for Children	Milton, Bradley Co.	84c
Walker and Jenks, Songs and Games for Little Ones.	Oliver Ditson	$1.50
Emily Poulsson, Holiday and Every Day Songs.	Milton, Bradley Co.	$1.67
Neiglinger, Small Songs for Small Singers.	Schirmer	$1.50
Elliott, Mother Goose.	McLaughlin Co.	59c
Alys Bentley, Song Primer (Teacher's Book)	A. S. Barnes Co.	90c
Marie Hofer, Singing Games for Children.		
Folk Games and Songs.	Flanagan Co.	each 40c
Progressive Music Series,	Silver, Burdette & Co.	
New Educational,	Ginn & Co.	
Lyric Music Series,	Scott, Foresman Co.	
Eleanor Smith Music Course	American Book Co.	
Modern Music Series,	Silver, Burdette & Co.	

ELEMENTARY ALGEBRA

FIRST GRADE.

Prepared by Andrew McCurdy, Carrizozo, N. M.

Basal Text, Hawkes-Luby-Touton Complete Algebra.

LESSON I.

INTRODUCTION TO ALGEBRA.

1. Define algebra. Compare algebra and arithmetic.
2. Illustrate usefulness of symbols in concrete problems.
3. Define and illustrate: (*a*) coefficient, (*b*) exponent, (*c*) polynomial.
4. Familiarize yourself with operations with parentheses by the solution of numerous problems containing them.
5. Review and practice the order of the fundamental operations of arithmetic.
6. Solve a number of problems in the evaluation of expressions, assigning arbitrary values to the several unknowns.

LESSON II.

POSITIVE AND NEGATIVE NUMBERS.

1. Give a device (original if possible) of teaching a class the principles of the addition of signed numbers.
2. Drill rapidly and extensively in the addition of plus and minus quantities.
3. Give the rule for the subtraction of signed numbers and explain by what right the indicated process is performed.
4. Work many problems containing the foregoing operations.
5. Explain the fact that like signs multiplied or divided give plus and unlike signs multiplied or divided give a negative result.
6. Drill extensively on the preceding principle.
7. Add and subtract a number of polynomials and check results.

LESSON III.

SIMPLE EQUATIONS AND PARENTHESES.

1. Define "transposition" and show the mathematical correctness of its use.
2. Solve all available problems, and originate problems producing simple equations. Always check results. This is a good habit to form and answer books are thereby discarded.
3. Distinguish between equations of identity and equations of condition, illustrating each type.
4. Translate written statements into equations and vice versa.
5. Observe rigidly the five systematic steps in the solution of equations, cultivating orderly analysis of all problems.
6. Work out enough miscellaneous problems to insure a firm grasp of this portion of algebra.
7. Be able to remove parentheses from an expression or to enclose terms of an expression in parentheses with equal readiness.
8. Solve a large number of simple equations containing parentheses.

LESSON IV.

MULTIPLICATION AND DIVISION OF POLYNOMIALS.

1. Study commutative and associative laws of multiplication of terms containing unlike letters.
2. Show treatment of exponents in multiplication of terms containing like letters.
3. What is the necessary arrangement of the terms of an expression in the mutiplication and division of polynomials?
4. Be always able to emphasize that algebra is directly dependent upon the fundamental arithmetical principles.
5. Solve various problems and apply check to results.

LESSON V.

FACTORING.

1. Learn all the common special products, such as the square of the sum of two numbers or of their difference, the product of the sum of two numbers by their difference, etc., taking special notice of the time and effort saved by the exercise of memory.
2. Drill generously until the resulting products of the more common factors can be declared without any hesitancy.

3. Factoring is defined as in arithmetic, but with extended usefulness in algebra.

4. Be able to supply with readiness any one missing term of a perfect trinomial square.

5. Factor numerous problems of a miscellaneous character. Famailiarity with this phase of algebra is a much-to-be-desired accomplishment.

6. Give special attention to the standard type forms on page 120, as all factorable expressions are embraced in these formulae.

7. Solve a number of quadratic and cubic equations at this time by the application of the principles just learned. Explain the following principle: "If the product of two factors is zero, one of the factors *must be* zero." Show also that both *may be* zero.

8. The H. C. F. and L. C. M. will be found to embrace arithmetical operations, with a slight algebraic extension.

LESSON VI.

FRACTIONS.

1. Study: (*a*) Reduction to lowest terms, (*b*) addition and subtraction, (*c*) multiplication and division, of fractions.

2. Give special attention to complex fractions, solving a sufficient number to insure a firm grasp of the subject.

3. Be able to readily handle equations containing fractional terms, checking all results.

4. Ratio and proportion. (*a*) Mean proportional, (*b*) third proportional, (*c*) fourth proportional. Define and illustrate.

5. Make every possible geometrical application of the theory of proportion.

LESSON VII.

GRAPHS AND LINEAR EQUATIONS.

1. Obtain, or prepare with ruler, necessary co-ordinate paper.

2. Point out and define (*a*) abscissa, (*b*) ordinate, (*c*) co-ordinates.

3. What are the relative positions of the positive and negative *x*- and *y*-values with reference to the axis?

4. Plot several linear equations and show that the intersection of the graphs of any two linear equations satisfies the conditions of either equation when substituted in it.

5. Solve an ample number of simultaneous linear equations

by the addition and subtraction method, or by the substitution method, as the form of the equations recommend.

6. Solve a few equations in three unknowns. How many independent equations must we have for the solution of equations containing two unknowns? Three?

7. Attend specially to literal simultaneous equations, emphasizing the broader meaning of these than of problems purely numerical.

8. Work many practical problems involving simultaneous equations, with special attention to list on pages 225-227.

LESSON VIII.

SQUARE ROOT AND RADICALS.

1. Give to the arithmetical method of extracting the square root an algebraic explanation, reviewing the rule, page 229.

2. Extract the square root of all available expressions, and employ the process in all possible geometrical problems.

3. What are real numbers? Imaginary numbers? Rational expressions? Irrational expressions? What is a surd? Radicand?

4. Write radical expressions as equivalents with fractional exponents and vice versa. In fractional exponents what part of the fraction is the index of the radical? Which is the exponent of the radicand?

5. Practice all methods of involution in the solution of representative problems.

6. When is a radical in its simplest form? (See list page 243.)

7. Work an adequate number of problems in all fundamental operations with radicals, until they are thoroughly familiar. What is meant by a rationalizing factor? Illustrate its use in division of radicals.

8. Factors involving radicals may now be understood and readily obtained. (See exercises page 257.)

LESSON IX.

GRAPHS OF EQUATIONS IN ONE UNKNOWN.

1. Distinguish between linear, quadratic and cubic equations. Define "function."

2. What kind of a line do you naturally expect the graph of a linear function to give?

3. Determine by trial the nature of the graph of a given quadratic equation. What is the resulting figure called?

4. Develop skill and rapidity in the plotting of graphs and observe the many important commercial applications of this method.

LESSON X.

QUADRATIC EQUATIONS.

1. Define a pure quadratic equation; an affected quadratic equation.

2. If the coefficient of the second power of the unknown is unity, by what right do we complete the square by adding to both members of the quadratic equation the square of half the coefficient of the first power of the unknown? Explain fully.

3. Make a special study of literal quadratic equations, as of all literal equations. Deduce the standard quadratic formula and solve numbers of these equations by direct substitution in this formula, checking all results.

4. Work out all available problems producing quadratics.

5. If time permits, study the principal types of simultaneous quadratic equations, solving all possible combinations of equations.

6. Do you favor the inductive method of teaching algebra, or should the set rule be made the basis of all procedure?

7. Endeavor, as a teacher of algebra, not to treat the subject as an isolated branch of mathematics, but as an extension of the fundamental principles of arithmetic, striving always to exclude the element of mystery from all its operations.

BOTANY

Prepared by J. E. Brownlee, New Mexico State Normal, Silver City, N. M.

This outline is based on Bergen & Caldwell's Introduction to Botany.

LESSON I.

ROOTS AND STEMS.

1. Describe the way roots grow. What things affect the growth. Compare them with stems.
2. Define root system. What influence does gravity have on the root system? What is meant by response to stimuli?
3. Compare the length of the root system with that of the stem system.
4. What are the principal functions of roots? What parts of roots do the work of absorption?
5. Why do plants wilt when first transplanted and later recover? Give some idea of the amount of water absorbed by roots.
6. Compare stems with roots as to the way in which they grow, and as to the work which they do.
7. Describe uses of stems to man. Name commercial products procured from stems. From roots.
8. What is forestry?
9. Explain the difference between the stem structure of monocotyledons and dicotyledons.
10. Discuss the various ways of climbing and show which are generally the most effective in securing a good light supply under great difficulties.

LESSON II.

STEMS, BUDS AND LEAVES.

1. Explain: (1) opposite branching; (2) alternate branching; (3) terminal buds; (4) annual growth.
2. Distinguish between annual, biennial and perennial plants.
3. Discuss the different methods of budding and grafting.
4. How does pruning affect the growth of hedges, shrubbery, etc.?

5. Find out the names of trees that are pruned for each of the following purposes:

(*a*) To improve the fruit.
(*b*) To alter the shape.
(*c*) To improve the flower.

6. Name different plants that store food in the stem. Name plants with underground stems.

7. Describe the structure of buds and their use to plants. When do the buds which open in the spring first appear?

8. Discuss the advantages of the overproduction of buds.

9. Would tropical trees have buds protected the same as those found in colder regions? Why? Name some buds useful as foods.

10. Name the parts of a leaf. What are its functions? How is the form of a leaf associated with its function?

LESSON III.

LEAVES AND FLOWERS.

1. Describe the shapes of the base of leaves. Of the apex, of the margin.

2. How are the forms and sizes of leaves related to the place in which they grow?

3. Discuss the different arrangements that leaves may have on a stem.

4. Define photosynthesis. What chemical changes take place in the leaf during this process?

5. Define respiration. How does respiration differ from photosynthesis?

6. Describe the movements of the leaves of the sensitive plant.

7. Describe the structure and position of veins. What are the principal dangers to which a leaf is exposed?

8. What are compass plants and what advantage is there in the compass plant?

9. Define flowers as to structure and function. Why are flowers used as the principal means for the identification of plants?

10. Define pollination. Discuss the different kinds of pollination. What are the agencies by means of which cross pollination is chiefly accomplished?

LESSON IV.

FLOWERS AND FRUITS.

1. Define nectar and indicate its use to the plant.
2. Explain what are the essential and what the accessory parts of flowers, and why they are such.
3. Describe fertilization, defining gamete, sperm and egg. Contrast fertilization with pollination.
4. Explain the crossing of species, defining species and hybrids.
5. Discuss the causes of the visits of insects to flowers. Define nectary, spur and pollen basket.
6. Give examples of apparent correlation between insect forms and flower forms. Describe the relationship between the pronuba moth and yucca.
7. Discuss the work of Luther Burbank and its importance to us.
8. State the general functions of fruits. Explain three principal ways in which fruits aid in the dispersal of seeds.
9. Compare dry and fleshy fruits as to commercial importance.
10. Discuss seedless fruits. Define dehiscent fruits and give examples.

LESSON V.

SEEDS AND SEED DISPERSAL.

1. Define (1) seed; (2) germination; (3) embryo; (4) testa; (5) cotyledon; (6) plumule.
2. What conditions are requisite for germination?
3. How should seeds be stored to keep them in good condition?
4. What nutrients are found in wheat? In corn, rye, rice, barley, beans, peas?
5. What is a monocotyledon? A dicotyledon? Name ten plants belonging to each group.
6. Why do most plants produce a large number of seeds? What advantage is it to plants to have their seeds widely distributed? Discuss the "struggle for existence."
7. How do the following plants scatter their seeds: burdock, beggar's tick, maple, dandelion, tumbleweed, Russian thistle and mistletoe?
8. How might railroads affect seed-dispersal?

9. Visit a drug store and make a list of seeds used for medicine, flavors, etc. Visit a grocery store and make a list of seeds used for food.

10. Discuss the relation between Nature Study and Botany.

LESSON VI.

1. Name the four great divisions into which the plant kingdom is divided.

2. State the general characteristics of Algae.

3. Describe the places in which you have seen algae growing. In what ways are the needs of algae different from the needs of ordinary land plants?

4. Describe Pluerococcus.

5. Describe nostoc, oscillataria.

6. Describe the reproduction of Ulothrix, defining cilia, gametes and oospore.

7. State the general characteristics of fungi. Give three examples of fungi which you have seen.

8. Explain the difference between parasite and saprophyte, defining host. Of what economic importance are fungi to man?

9. Discuss sanitation with reference to bacteria. What is the principal way in which soil bacteria are helpful to crops.

10. Describe the relationship of certain soil bacteria to Leguminosae, defining tubercles.

LESSON VII.

BRYOPHYTES.

1. What plants belong to the Bryophyta?

2. State a fundamental difference between mosses and liverworts.

3. Describe what is thought to be the way in which plant life came from the water to the land. What is meant by an amphibious plant?

4. Describe the sex method of reproduction in Marchantia, defining archegonia and antheridia. Describe the asexual method in the same plant.

5. Describe the alteration of generations in liverworts.

6. Describe the relations between mosses, liverworts and lichens as to growth upon rocks.

7. Describe the habits of growth of mosses.

8. Describe sex reproduction in a moss.

9. Explain the advantage to plants in having photosynthesis and spore production performed in the same generation.
10. Discuss the economic importance of Bryophytes.

LESSON VIII.

PTERIDOPHYTES.

1. Describe the structure of a true fern, defining frond and venation.
2. Describe the reproduction of a true fern, defining sporogonium, sorus, indusium, annulus and prothalium.
3. Describe the structure of Equisetum. Describe its reproduction, defining sporophyll and strobilus.
4. Would you classify ferns as land or aquatic plants?
5. Are the horsetails increasing in quantity and size, or on the decline?
6. Are ferns independent or dependent plants?
7. Discuss the economic importance of ferns.
8. Discuss the evolution of plants.
9. In what sense is it true that the vascular tissue exemplified in ferns means about the same to the plant kingdom as the vertebral column means to the animal kingdom?
10. How do florists propagate their ferns?

LESSON IX.

GYMNOSPERMS AND ANGIOSPERMS.

1. Give examples of the Coniferae.
2. What sort of organ is a pine cone? Explain its structure.
3. Distinguish between the staminate and pistillate cones of Coniferae.
4. Describe the pollen of pine and the process of pollination.
5. Describe the embryo of the pine.
6. Describe the female gametophyte of gymnosperms.
7. Give a summary of the life history of a gymnosperm.
8. State the characteristics which distinguish gymnosperm from angiosperm.
9. In what ways are the seed plants the most complex of all plants?
10. What is meant by the statement that the angiosperms are the youngest and most successful groups of plants?

LESSON X.

GENERAL REVIEW QUESTIONS.

1. Show ways in which the seed plant habit of storing food in seeds and elsewhere is important to industries. What four plants are most valuable for their stored food?
2. What plant products are being used as substitutes for animal products?
3. How may man vary the amount or quality of food stored in plants?
4. How has man varied some plants until they would probably be unable to maintain themselves in nature if unprotected?
5. Define plant breeding. Discuss variation and give examples of it which you have noted.
6. What is it that causes agricultural plants, when suddenly submerged, to become yellow and die?
7. What are the plant diseases of your community? What has your state done to prevent these diseases?
8. Name the worst weeds in your community.
9. Explain why rotation of crops tends to destroy weeds.
10. Describe a life relationship of plants which is not found among animals.

INDUSTRIAL BRANCHES

Outlines arranged under supervision of L. C. Mersfelder, State Director of Industrial Education, Santa Fe, N. M.

To County Superintendents:

Please bear in mind the industrial work when selecting your institute instructors. I presume that it will be possible to have agriculture taught in every institute and I trust that each county superintendent will make due provision for the teaching of either manual training or domestic science. In most instances the institute will be held where there is sufficient equipment for this work, but it will certainly be necessary for the instructor to have certain material with which to work, and so I suggest that you confer in advance with your industrial instructor and ascertain just what may be needed for this work. Each county can well afford to spend at least from twenty to twenty-five dollars for industrial material.

To Industrial Instructors:

In a few of the county institutes, the instructor in this department will have adequate material and equipment with which to work, and plenty of time. You will also have teachers in your class who have had previous training in this department. Under such favorable conditions you will be expected, of course, to outline your work to meet local conditions. However, in a majority of the institutes the work will be with rural and village teachers who have had very little or no training along this line. This is due, of course, to the fact that these subjects have been included in our regular course of study only a short time.

With these facts in mind, I am having the outlines in each subject prepared accordingly. In many instances directors and patrons have objected to the teaching of these industrial branches because they could not see the benefit to be derived from same. These people are honest in their convictions and will continue to to oppose the teaching of this or any other subject unless they ca nbe convinced that they are mistaken. Therefore, if any teacher is to have the support and cooperation of her community in this work she *must* be able to present same to the children and par-

ents in a way that will demonstrate its worth. In other words, she must present the practical side to them. For instance, if a farmer's boy comes home and attempts to tell his father the biological name for the various plants on the farm, the father sees no value in the knowledge, but if the son can thoroughly demonstrate the fact that certain seeds will never germinate if planted, and also show the proper method of selecting seed to plant, then the father becomes converted. The same rule applies to manual training and domestic science. The time will come when the rural population of New Mexico would raise a complaint that would be heard from one end of the state to the other if the industrial branches were eliminated from our public school curriculum, but this will be after efficient and tactful rural teachers have done the good missionary work throughout the state as is being done in many of our rural districts today.

The point I am trying to make is that the very work we expect the teachers to do when they go to their school in the fall is what we must give them in the summer institute. If it be in manual training, let them make something and take it home with them, then have their pupils make from this model.

Allow me to call your careful attention to the fact that for this year the grade which a teacher gets for her certificate will depend as much or more on WORK DONE IN THE INSTITUTE than on their answers to questions at the close of the institute. In other words, you as instructors will be expected to furnish with each examination paper, a grade to indicate class work by applicant. These subjects deal more with DOING THINGS than *writing* them. Especially is this true with reference to manual training and domestic science. Of course, the short time will prevent many experiments in agriculture.

PRINCIPAL TEXTS.

Outlines and examination questions are to be based largely on the following texts:

Agriculture: Burkett, Stevens & Hill.
Adopted Text. Price 75c.
Domestic Science: Morris, (American Book Company.)
Adopted Text. Price 65c.
Manual Training: W. Melvin Fox (Belen, N. M.)
Price 60c.

AGRICULTURE

(Duplicate of 1915 Outline.)

LESSON I.

1. Of what value is soil to animal, to vegetable, and to the life of man?
2. Discuss the origin and process of soil making?
3. Name four active agents that convert rock waste into soil.
4. What is weathering? What is humus?
5. What service did Jethro Tull render to the farmers of England?
6. What tools are used in tillage?
7. At what depth should shallow soil be plowed?
8. What is meant by crop rotation and what is its purpose?
9. What is the purpose of tillage?
10. Assignment of Special Topics for the lessons that follow. If possible, have each member of the class make an oral or written report on some subject of agricultural interest—during the session.

LESSON II.

1. Is there such a process as "farming without water?"
2. What amount of rainfall is necessary for successful crop raising in this section?
3. What is the average annual rainfall where you live?
4. Discuss two ways in which a deficiency of rainfall can be overcome.
5. What crops require an abundance of water?
6. Name five drouth resistant crops.
7. What crops thrive best on a sandy soil?
8. What crops require great heat for maturing?
9. Define: (*a*) sub-soil; (*b*) alkali soil; (*c*) adobe soil; (*d*) virgin soil; (*e*) arid soil.

LESSON III.

1. Discuss briefly the history of irrigation in the United States.
2. Discuss the advantages and disadvantages of rivers as a source of water supply for irrigation; reservoirs; artesian wells; pumping plants.

3. Which of these systems is used in your section of the State and what others, if any, could be used to advantage to furnish a more abundant water supply?

4. Discuss the construction of the Elephant Butte dam and its relation to the development of southern New Mexico.

5. To what extent is the United States engaged in promoting irrigation enterprises? In what way are funds provided for this purpose?

6. Does soil with an abundant water supply need as careful tillage as that recommended for "dry farming?"

7. What is meant by drainage? Is drainage necessary in this State?

8. Name five advantages of artificial drainage.

9. (*a*) Special topic: "Gasoline Applied to Farm Power." (*b*) Special topic: "What Electricity Will Do for the Farm Wife."

10. Discussion.

LESSON IV.

1. What is meant by "dry farming?"

2. Name five farm tools necessary for use by this method and describe their uses.

3. What farm crops are best adapted to this method?

4. Can dairying be carried on successfully in connection with dry farming?

5. What is a silo? Describe two kinds.

6. Does New Mexico supply its own market with butter and eggs? Why?

7. Are prohibitive freight rates due to lack of co-operation among farmers in marketing their products, to the long haul required for a market, or to lack of rate regulation? Only thoughtful answers to this question should be accepted.

8. What are the advantages of the Weather Bureau; the Parcel Post; co-operative canning factories, creameries, dipping associations?

9-10. Debate: "Resolved, That the business of the local merchant is being rapidly absorbed by the mail order houses."

Discussion.

LESSON V.

1. Name two crops that exhaust soil fertility. Two that are soil improvers.

2. What is meant by pollination?

3. What is propagating by buds?

4. Discuss layering. Seed selection.

5. How would you select seed potatoes?

6. How would you select seed wheat?

7. Outline in advance and tell how you would present a lesson on the selection of seed corn.

8. What service has each of the following men rendered in developing the agricultural industry: Luther Burbank, Cyrus McCormick, Eli Whitney, W. H. Campbell?

9. Is the evolution of industry tending to attract boys towards or away from the farm?

10. Special Topic: "Some Things That Will Make Farm Life More Attractive."

LESSON VI.

Plan a class excursion to some interesting farm problem, as an experiment farm, an irrigation project, a model farm, a good garden, or other farm industry. A general discussion in class will bring out the location of interesting places to visit. In most cases the class can walk. In some instances progressive citizens and Commercial Clubs arrange an automobile trip for the excursion. The instructor should outline the observations to be made and require a written report from each member of the class or a general discussion in lieu of that in a later lesson.

LESSON VII.

1. Why should agriculture be taught in the rural schools?

2. Who receives the greater financial return from land, the homesteader, the speculator, or the permanent occupant?

3. Adam is said to have failed in the Garden of Eden. Do more farmers fail from lack of knowledge, lack of capital, lack of good markets, or a lack of interest?

4. What methods are proposed to remedy the last four named?

5. For what are the following used: a hot bed, a spud, a brooder, a weir?

6-9. How would you prepare the soil, plant and cultivate a crop of wheat; corn; cotton; potatoes; cane?

10. Special topic: "My Favorite Breed of Chickens."

LESSON VIII.

1. Name five farm pests and discuss the manner of treatment.

2. Are we making more advancement in New Mexico in farming or animal husbandry?

3. Are good roads as necessary to the farmer as to the automobilist? Which has been the more active in furthering the Good Roads movement?

4. What road improvements have been made in your county in the past two years? What further improvements are needed?

5. What uses can be made of farm powder?

6. In what ways can your State Agricultural College and the Department of Agriculture assist you in the teaching of agriculture?

7. What are County Agents or Demonstrators, and how can one be secured?

8. Name some valuable farm bulletins that can be secured for the asking. Where and to whom should you write for such bulletins?

9. Name some farm conveniences that can be made by older boys in the manual training class.

10. Debate: "Resolved, That Farm Life is Preferable to City Life."

LESSON IX.

The time should be devoted to Special Reports previously assigned by the instructor or occupied by an outside speaker.

LESSON X.

This lesson should be devoted to the work of the Boys' and Girls' Clubs.

LESSON XI.

INDUSTRIAL CLUB WORK.

1. What is the Industrial Club Work for? Who is the State Leader in New Mexico? By whose authority does he work?

2. What relation has the Club work to school work?

3. What are the six Club Projects in New Mexico for the 1916 contests?

4. Which of these are along (1) the line of Agriculture: (2) Home Economics?

5. Would it be advisable to give school credit for this home work of the Club contests?

6. In what subjects and how much credit should be given for each Project completed?

7. What are the duties of Local Leaders in Club Work? How can the teacher be a Local Leader in Club Work and make it a help to the school work?

8. In Cook County, Illinois, teachers who are Local Leaders in Club work stay with their pupils during the summer and give field, garden and home instructions. Would this be a good plan for New Mexico?

(See 1914 report of Dist. No. 73, E. J. Tobin, Chicago, Ill., County Supt.)

9. What will Club work do for community interests? Are you planning to have a Local Contest in your school next fall?

(Read "The Corn Lady" by Jessie Field—Supt. Page Co., Ia.—A. Flanagan Co.)

10. Club products for the market may be sold under the 4-H Brand. What does the 4-H Brand stand for?

SOURCES OF INFORMATION.

Mr. O. H. Benson—National Leader for 33 Northern and Western States—is authority on Club work. His office is in U. S. Department of Agriculture, Washington, D. C.

The State Leader for New Mexico has his office at State College, N. M.

BULLETINS AND CIRCULARS.

1. Bulletin No. 1—Boys' and Girls' Club Work, State College, N. M.
2. Office of Expt. Sta.—Bulletin 255—Educational contests in Agriculture and Home Economics, U. S. D. A., Washington, D. C.
3. B. P. I. Circular No. 803—Organization of Boys' Corn-Club Work—U. S. D. A.
4. B. P. I. Circular No. 104—Special Contests for Corn-Club Work—U. S. D. A.
5. Farmers' Bulletin 521—Canning Tomatoes at Home and in Club Work—U. S. D. A.

"The Ways of Thrift"—monthly, $1.00 per year, Clyde A. Mann, Chicago, Ill.

"Community Building"—monthly, $0.50 per year. A. J. Bill, Bloomington, Ill.

"The Rural Educator"—monthly, $1.00 per year. R. E. Company, University Hall, Columbus, O.

BOYS' AND GIRLS' CLUB WORK

Prepared by W. T. Conway, State College, State Leader.

Boys' and Girls' Club Work is junior Extension work in agriculture and home economics, carried on cooperatively by the State Agricultural College and the U. S. Department of Agriculture "for the purpose of systematic study and demonstration of scientific principles in agriculture and home economics."

The Club Work is chiefly "home work" but correlates nicely with "school work." It is divided into Club Projects, each project representing some definitely planned, specific work; as, "growing an acre of corn," "growing a garden and canning vegetables," "raising a pig or a flock of chickens," "doing cooking or sewing," etc., etc. Instructions in each project are furnished free to Club members by the State Leader of Club Work.

Club members are from ten to eighteen years of age, inclusive. They choose a project, follow the instructions and do their own work under the guidance of a Local Leader. They keep records of work done and all costs of the project. They make exhibits at the close of the contest of the products made or raised and present a copy of their records with a written story on how they did the work.

The first contests are local to ascertain the competitors for the county contest. The county winners exhibit in the state contest and are eligible to go to the State Club Encampment. There the state champion in each Club Project is determined. Premiums are awarded in each of these contests. Expenses to the State Encampment is considered a good county prize.

HOW TO ORGANIZE INDUSTRIAL CLUBS.

Secure literature on each Club Project from the State Leader and present the projects best adapted to local conditions. All members of the same Club choose the same project. Five or more members may compose a Club. Select some older person to be the Local Leader of the Club. Elect officers—president, vice-president, secretary-treasurer—from among the Club members. Enroll all members and officers on special U. S. post cards furnished by the State Leader, then mail the cards to the State Leader, State College, N. M.

The State Leader transfers the names of members, officers and Local Leader to a CHARTER in duplicate. One charter is sent to the Secretary of the Club and the other to the County Superintendent or the County Agriculturist. With the charter, to the Secretary of the Club, is sent a sufficient number of Club Circulars and Club Lesson I. so that the Leader and each member may have one. The Club organization is then complete and the members are ready for business. Other lessons follow monthly.

Any teacher or other person, interested in the welfare and achievement of boys and girls along the lines of manual training, agriculture and home economics, is authorized to organize Boys' and Girls' Clubs, become their Leader and direct the activities of the local organization under the supervision of the State Leader of Club Work. The State Leader heartily invites the cooperation of every teacher in this great movement for industrial education.

The endorsement of Club Work by the State Department of Education and the assistance rendered by the State Director of Industrial Education in getting Club Work started throughout the state has done much for the success of the work.

THE WORK OF THE LEADERS.

A good Local Leader is absolutely necessary for the success of Boys' and Girls' Club Work. Experience in the work is not a prerequisite for leadership, but a willingness to follow instructions is needed.

The Leader should be at all Club meetings—usually once a month. He should observe the work of the members, examine their records, help them prepare exhibits and inspect the monthly and final reports. The Leader should encourage the members to stick to their projects and complete them. He should plan for the local exhibit and secure some suitable premiums to make the contest more interesting. Where a number of Clubs are organized and working out different projects in the same community, the Local Leaders of these Clubs should organize themselves and constitute the fair board for the community.

County Superintendents and County Agriculturists with those appointed by them constitute the authority for doing Club work and holding contests in the county. They should see that a county contest is held and competent judges are secured to pass on the merits of the various exhibits. They should secure the funds to send the county winners to the State Club Encampment and provide premiums of an educational character for all other winners.

The State Leaders of Club Work and Director of Industrial Education will provide for holding the state contest at the State Encampment and prepare a suitable educational program for those in attendance. This will be the crowning event of the Club Work for the year.

PROJECTS OUTLINED.

Extension Circular No. 8—Boys' and Girls' Field Crops Project.
" " No. 9—Boys' and Girls' Garden and Canning Clubs.
" " No. 10—Boys' Pig Club Project.
" " No. 11—Boys' and Girls' Poultry Clubs.
" " No. 12—Girls' Cooking Club Work.
" " No. 13—Girls' Sewing Clubs.

Published by Extension Division, N. M. College of A. & M. A., State College, N. M., National and State Leaders in Club Work.

O. H. Benson—in charge of Club Work, North and West—33 states.
Geo. E. Farrell—Assistant.
Miss Florence E. Ward—Assistant.

U. S. D. A.
Washington, D. C.

W. T. Conway—State Agent in charge of Club Work, State College, N. M.
J. H. Toulouse—Assistant.

NOTE—Reference for Bulletins will be found on Club Circulars.

MANUAL TRAINING

Prepared by W. Melvin Fox, Superintendent of Schools, Belen, New Mexico.

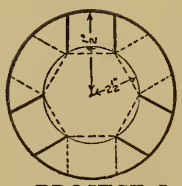
Reference Book: Fox's "Practical Woodwork." Price, 60c.

It is an extremely difficult task to so make a course of instruction on this subject that it will meet all the needs of every teacher in one short month of institute work. There are teachers whose work is confined to a particular grade and their needs are determined accordingly; while the great mass of rural teachers are engaged in instructing several grades and their needs are consequently much more complex. A discrimination ought to be made, however, between Manual Training and what is commonly called "busy work;" therefore, it will be no part of this outline to trespass beyond these premises.

The first week of the Institute in Manual Training should be devoted to four lessons covering the work of the first four grades. Teachers who are employed in primary and lower grade work may enlarge indefinitely on these lessons. It is desired that every teacher will personally make the projects assigned them and keep them as models with which to go before their classes at the proper time. It is the intention in industrial education this year to *make things* rather than to *talk about making them.* It is also intended to have a large percent of the Manual Training credit given on the actual construction of projects in institute, rather than credit on successfully written examinations.

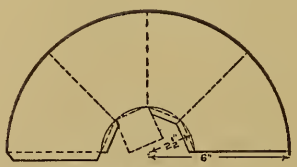
LESSON I

PAPER CONSTRUCTIONS.



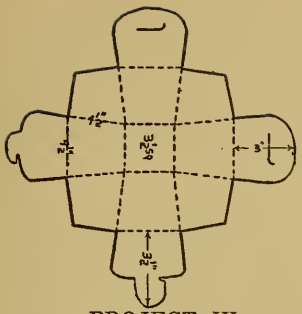
PROJECT I.

Fold on the dotted lines.
Hexagonal Paper Box.
Cut on heavy full lines.



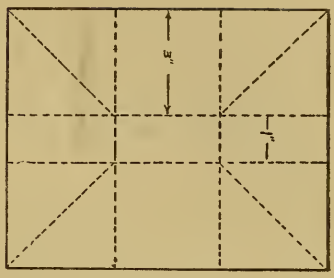
PROJECT II.

Hopper-Shaped Box.
Cut on the heavy full lines.
Fold on the dotted lines.



PROJECT III.

Paper Pail.
Cut on the heavy full lines.
Fold on the dotted lines.



PROJECT IV.

Folded Paper Bag or Sack.
Cut on the heavy full lines.
Fold on the dotted lines.

Make these projects in actual class work and preserve them for future models. The teacher who is able to construct these will be able to enlarge indefinitely on work of this kind. Start with the simplest paper-folding and cutting for the beginners and gradually lead up to more difficult useful things.

LESSON II

TYING, KNOTTING, TWISTING, BRAIDING.

Teach the following simple knots: Hard knot, Slip-noose knot, Weaver's knot, and Hitching knot. These are useful things that the children in the lower grades should know and lead to a large field of projects along this line. A six-year-old boy should be able to tie a rope about a calf's neck so it will not choke. Instruct them how to twist and double cord so as to increase its strength and still remain twisted. Teach them three-strand and four-strand braiding and show how to keep uniformity in the process.

LESSON III.

REED WORK.

Construct a tray out of rattan wound with raffia or a willow osier wound with corn-husks. The rattan, willow, and corn-husks should be well soaked in water before using. Construct a mat or simple basket out of rattan or willow osiers showing the pupil how to use the spokes and the weaver and how to finish off the binding.

LESSON IV

SIMPLE BOOK CONSTRUCTION.

Contruct the book suggestions, showing the various steps in the process, and have the pupil design the covers with appropriate drawings.

PROJECT I. Folded and Sewed.

PROJECT II. Punched and Laced.

PROJECT III. Punched and Tied.

In a four-weeks' institute it is within the capability of the average teacher to take up and complete four lessons in wood-work, especially when those lessons include only one project in each of the four groups, namely: The Preliminary Group, Box-making Group, Modeling Group, and Simple Furniture Group. A number of projects from each group are suggested, thereby giving the pupil or teacher a choice as to what he will make for each group. This method brings into use the largest number of principles involved in wood-work as well as the use of a variety of tools. If pupils are much over-age for their grades or have had previous experience they may be required to do much more advanced work. The institute instuctors should see that their pupils in institute classes do not select the largest and most difficult project in each group as they may not have time to complete them before the term closes. The choice of projects in each group should be confined to those selected in this manual as the best results will thereby be attained. This course in wood-work, from the fourth grade up, is based on Fox's "Practical Woodwork," and every teacher should become familiar with the early chapters of this volume, and follow the steps in the process of construction as closely as possible. It is also believed that every teacher should have a copy of this work to take back with him to his school for the next year's work. It is full of valuable information as well as many carefully worked out designs of practical and useful projects.

WOODWORK FOR FIFTH GRADE.

Lesson I Grade V.....Project 1— 2
Lesson II Grade V.....Project 3— 4— 5— 6
Lesson III Grade V.....Project 21—22
Lesson IV Grade V.....Project 29—30—31

WOODWORK FOR SIXTH GRADE.

Lesson I Grade VI.....Project 2— 7— 8— 9—10
Lesson II Grade VI.....Project 22—23—24
Lesson III Grade VI.....Project 32—34—35
Lesson IV Grade VI.....Project 41—44—46

WOODWORK FOR SEVENTH GRADE.

Lesson I Grade VII.....Project 11—12—14—15—16
Lesson II Grade VII.....Project 25—26
Lesson III Grade VII.....Project 36—37
Lesson IV Grade VII.....Project 42—48—49

WOODWORK FOR THE EIGHTH GRADE.

Lesson I Grade VIII.....Project 17—18—19—20
Lesson II Grade VIII.....Project 27—28
Lesson III Grade VIII.....Project 38—39—40
Lesson IV Grade VIII.....Project 43—45—47—50

DOMESTIC SCIENCE

Prepared by Mrs. Florence Bartlett, Santa Fe.

Reference Books: Household Science and Arts, Josephine Morris, A. B. C. Price 65c. Foods and Household Management, Kinne & Cooley, price $1.10, The MacMillan Co. Physiology and Hygiene, Conn. Primer of Sanitation, Ritchie.

LESSON I

HOW TO TEACH DOMESTIC SCIENCE IN THE PUBLIC SCHOOLS.

1. What equipment is necessary for teaching cooking in the public schools?
2. Discuss problems that present themselves to the rural teacher.
3. How should records of class work be kept?
4. How may the community co-operate with the school in the pursuit of this subject?
5. Boys' and girls' clubs. What are they? How organized? Purpose of and means of maintaining interest.
6. What is a kitchen garden? How may all our schools have them?
7. How much domestic science may be taught in the lower grades? Discuss the benefits that may be derived from "playing dolls" and "playing house."
8. How may neatness about one's person, one's clothes and one's home be taught in the public schools?
9. How may children be encouraged to keep wardrobes and bureau drawers neat and clean?
10. Make an outline of a year's work in domestic science.
11. What is food? What is the purpose of cooking?

LESSON II

CARE OF KITCHEN.

1. Discuss the biology of cleanliness. What are germs? What is poison? Infection?

2. How should a kitchen be cleaned? How may it be kept clean? Discuss floor, table, pantry shelves, bins, stove, stove-pipe, sink, refrigerator, waste pipes.

3. How should dishes be washed and dried? Glass-ware? Silver? Cooking utensils? Discuss dish-washing and drying appliances.

4. Dish mops and towels should be scalded daily and hung in the sun. What is the best material for dish towels?

5. What are the merits of various cleaners? Lye, ammonia, soap, scouring brick, kerosene for removing grease.

6. Draw a plan for a well arranged kitchen.

7. Discuss floor covering, walls, ceiling, furnishings, kitchen cabinet.

8. Discuss stoves, wood, coal, gas, electric, fireless, brick and adobe ovens, thermos bottles.

9. How should receipts be kept? Discuss the merits of various cook books.

10. How should kitchen accounts be kept? What proportion of an income should go to the table? Name some kitchen pests and tell how they may be removed. Ants, mice, roaches, etc.

LESSON III

BREAD MAKING.

1. How would you teach the chemistry of bread making to a rural class? Discuss methods of mixing bread and dough; temperature of oven for baking; length of time required.

2. How would you care for bread after taking from oven? Discuss causes and nature of mildew, care of bread-box.

3. What are the advantages and disadvantages of salt-rising bread; of moist and dry compressed yeast; of yeast "starter"; of potatoes in yeast?

4. What is the composition of baking powder? What is the principle on which it "works"? What is the chemical action of soda on cream of tartar, molasses, sour milk?

5. Describe a grain of wheat and mention the useful minerals found in the bran. Describe starch granules.

6. Describe various flours—bolted, graham, whole wheat, corn, rye, oat-meal, bran.

7. Discuss yeast bread, biscuits, muffins, griddle cakes, waffles, toast, coffee bread, rolls, raisin bread, nut bread, brown bread, crullers.

8. Name uses for stale bread, and bread crumbs, for pudding, breaded meat, thickening for sauces, etc.

9. Making sandwiches—best method of slicing bread, filling, removing crust.

10. Recipes.

LESSON IV

COOKING VEGETABLES AND CEREALS.

1. Name some roots, stems, leaves, fruits and tubers used as vegetables.

2. How should peel be removed from new potatoes, carrots? How should lettuce and celery be prepared for eating? How should spinach and cauliflower be prepared for cooking? How are vegetables bleached?

3. Discuss boiling, baking and frying vegetables. What is sauteing? How are cream sauce, and butter sauce made?

4. Discuss the digestibility, nutritive value and chemical composition of corn, beans, potatoes, lettuce, beets, carrots, cabbage. How should vegetables be bought? How cared for?

5. What are carbohydrates? Of what use are they to the body?

6. What are ptomaines?

7. Of what use are minerals to the body? Name some fruit and vegetable acids.

8. What foods are classified as cereals? What is their nutritive value? Economic value? Discuss prepared breakfast foods.

9. How should oat-meal be prepared? How long should it be cooked? Cream of wheat? How should rice be cooked?

10. Recipes.

LESSON V

COOKING MEATS.

1. Discuss methods of cooking meats. Boiling, frying, sauteing, stewing, broiling, roasting. What advantage has each method?

2. How would you teach a rural class the various cuts of meat? Economy in buying meat? Method of carving?

3. Discuss the nutritive value and digestibility of beef, veal, mutton, lamb, pork, fowl, fish. What is a pot roast?

4. Discuss the value of other foods rich in protein, such as milk, cheese, nuts, beans. What is protein? Where and how digested?

5. What is fat? How and where digested? What is an emulsion? Name useful vegetable and animal fats.

6. Discuss the use of seasonings to make meat palatable, also pleasing combinations, such as turkey and cranberry sauce, lamb with mint, pork with apple sauce.

7. What are the most economical cuts of meat to buy (considering the nutritive value)?

8. Name some meat substitutes.

9. Name use for cold meats. Croquettes, filling for tomatoes or bell peppers, salad.

10. Recipes.

LESSON VI

SOUPS, SALADS, SAUCES.

1. What cuts of meat are used for making soup? Broth? How should each be cooked? What is stock?

2. Soup should have the place of an appetizer at a meal. Should it be highly seasoned? How should it be served? How eaten? Should crackers be broken into soup at the table?

3. How are noodles made? What is the use of spaghetti, macaroni, rice, barley, etc., in soup?

4. How are croutons made? What are bread sticks? What is a pouree? How made? What is bouillon?

5. How should oysters be cooked for soup?

6. What is French salad dressing? Cooked dressing? Mayonnaise? What does it mean to marinate?

7. Name various fruit, vegetables and meat salads. How should they be served? How should lettuce be crisped?

8. How are cheese wafers made? Cheese straws?

9. How are the following made: Brown gravy, cream gravy, curry sauce, chili sauce, Spanish sauce, Tartar sauce?

10. Recipes.

LESSON VII

CAKES AND PASTRY.

1. All cakes are divided into two general classes. (1) Those into which butter or other fat enters, and, (2) Those into which it does not, as sponge.

2. What effect has altitude on cake making? How may this be remedied? Name the utensils required for cake making.

3. What is the order of mixing ingredients? Name some substitutes for butter.

4. Discuss cake baking, time for, temperature, care of, after taking from oven.

5. Cooked and uncooked icing. Should cake be iced while warm or cold? How are the following icings made: White, chocolate, caramel, marshmallow?

6. Name and describe various fillings, cream, fruit, nut, jelly.

7. Discuss drop cakes, cookies, fruit, layer, pound, gingerbread, and various economical cakes.

8. How is pie crust made? Puff paste? Discuss various fillings for pies, turnovers and patties. What is peach cobbler?

9. How is mince-meat made? Mince pie?

10. Recipes.

LESSON VIII.

DESSERTS AND BEVERAGES.

1. What is the food value of ice cream? What is water ice? Sherbet? Mousse?

2. How is freezing accomplished? What is the proper proportion of ice and salt? How is ice cream packed after freezing? What should be the care of the freezer?

3. Describe various cold fruit drinks: Lemonade, orangeade, pineapple and grape juice, fruit punch, iced coffee.

4. What is a custard? How may sago, tapioca, rice, bread and cake be combined with a custard foundation to make pudding? These may or may not be combined with fruits and jellies. What is suet pudding?

5. Discuss desserts that have a gelatine foundation: Snow pudding, Spanish cream, coffee jelly, wine jelly.

6. How are starch deserts made? Corn-starch, blanc-mange, chocolate blanc-mange?

7. Discuss the use of fresh and cooked fruit for dessert. Stewed apples, prunes, rhubarb, baked apples.

8. How should tea, coffee, cocoa and chocolate be made? What is theine, caffeine, coco, theobromine?

9. Name and describe some pudding sauces. Hard, lemon, wine, cream, foamy.

10. Recipes.

LESSON IX.

PRESERVES AND JELLIES.

1. When should fruits and vegetables be preserved? How should a preserve closet be kept free from mold-producing germs?

2. How should utensils used in the preparation of and jars used in the packing of preserved fruit, be cared for?

3. How may food be preserved? Discuss the composition and nutritive value of various fruits.

4. Discuss fully methods of canning fruits and vegetables. What is the difference between canned fruit and "preserves?"

5. What is fermentation? Cause of? Effect of? Why does food spoil? Discuss the subject of making preserves; jams, jellies and fruit butter.

6. Name some of the dangers that lurk in commercial canned goods.

7. Discuss fully the subject of pickling.

8. How is fruit evaporated? How should dried fruits be cooked?

9. Name and describe the principal spices and condiments used to season preserves, pickles, etc.

10. Recipes.

LESSON X.

INVALID COOKERY.

1. What are the requisites for foods intended for invalids?

2. Name some nourishing liquid foods. Name points to be considered in preparing infant's food.

3. Name some easily digested semi-solids. What is meant by pasteurized and sterilized food?

4. Name some foods suitable for convalescents. Discuss water supply, contamination of, filtration, cisterns, distillation of.

5. Discuss the beneficent qualities of milk, cream, junket, cottage cheese, buttermilk, koumiss.

6. How are mutton and beef broth prepared? Milk toast, soft boiled eggs, steamed rice, milk punch?

7. Discuss diet in regard to the following ailments: liver, stomach, intestinal and kidney troubles, fevers, colds aenemia.

8. How should an invalid's tray be arranged?

9. How should food be kept cool and clean? Discuss the care of the refrigerator, tainted food, odors, sterilizing. Discuss the use of lime, charcoal.

10. Recipes.

LESSON XI.

BALANCED MEALS.

1. What is meant by a well balanced meal? What are the principal elements of the human body? What proportion of protein, carbohydrate, mineral and fat should a meal have?

2. Prepare and analyze model menus for breakfast.

3. Prepare and analyze model menus for luncheon and supper.

4. Prepare and analyze model menus for dinner.

5. Prepare suitable menus for luncheons for school children and for picnics.

6. Discuss the meaning of "refreshments" at social entertainments. Give suggestive menus.

7. Discuss the subject of "soft drinks," such as are commonly sold at soda fountains. Coloring matter, injurious, and not so.

8. Discuss the subject of camp cookery.

9. Chafing dish cookery.

10. Discuss Household Economics. The use of "leftovers" in the preparation of meals. The proper way to buy.

11. Recipes.

LESSON XII.

THE SERVING OF MEALS.

1. Describe table linens suitable for both formal and informal use.

2. Describe china, silver ware and glass ware that are considered in good taste. Discuss the method of washing and caring for these.

3. Describe a table properly set for formal and for informal meals.

4. What is the proper way to serve a meal both when there is a servant and when there is none? From which side should food be passed?

5. Table decoration. Of what should it consist? Speak of place cards.

6. Candy-making. What is meant by soft ball, hard ball, thread, crack?

7. What is fondant? What are the nature and sources of sugar? Name other ingredients used in the making of candy.

8. What are hard candies? How is taffy made?

9. Recipes.

10. Table manners.—Discuss fully.

DOMESTIC ART

Prepared by Mrs. Florence Bartlett, Santa Fe, N. M.

Reference Books:

Shelter and Clothing—Kinne & Cooley; price $1.10; MacMillan Company.

Handicraft for Girls—Isabelle McGlauflin; price $1.00; Manual Arts Press, Peoria, Ill.

Cardboard Construction—W. C. A. Hammel; 20c.

Cardboard Construction—J. W. Trybon; 90c.

Paper Folding—W. C. A. Hammel; 20c.

Paper Sloyd for Primary Grades—Edna N. A. Rich; 70c.

Primary Hand Work—W. Seegmier; 90c.

Hand Loom Weaving—Todd; 90c.

Raffia and Reed Weaving—Elizabeth Knapp; 45c.

Practical and Artistic Basketry—Laura R. Tensley; $1.00.

Course of Study in Industrial Education—Tensley.

LESSON I.

HOW TO TEACH SEWING IN THE PUBLIC SCHOOLS.

1. Discuss ways and means of teaching sewing in the public schools. How often should lessons be given? How much credit should be given for home work?

2. What are some problems peculiar to teaching sewing in the rural schools? How would you overcome these?

3. How may the co-operation of merchants, housewives and school boards be secured by the teacher and her class?

4. What equipment is necessary for the school and for individual pupils? How may this be secured in poor communities?

5. Discuss the various kinds of thread and needles used in sewing with regard to numbers and sizes.

6. How should a needle be threaded? How should a knot be made? When may knots be dispensed with? A thimble should always be used.

7. Discuss fully the following points: The position of the pupil while sewing, height of chair, position of feet, back, head,

distance of work from the eyes, pinning work to the dress at the knee.

8. Sewing in relation to defective eyesight and to nervous children.

9. Care of hands, nails, materials, work box, neatness, pride in work.

10. Practical demonstration and assignment.

LESSON II.

PLAIN SEWING.

1. What is a stitch? What is running stitch? For what is it used?

2. Describe various methods of basting. For what is each used? What is backstitching? For what is it used?

3. Describe combination stitch, overcasting stitch, overhanding. For what is each used? What is whipping? Hemming?

4. What is a seam? A french seam? A felled seam? What kind of seams are used for infants' clothing and fine white lingerie? What is a beaded seam?

5. What is a gusset? How is a bound buttonhole made?

6. Describe various forms of mending, patching and darning.

7. What is meant by rolling and whipping? When used?

8. How should a seam on flannel be made and finished? When and how are the edges of seams overcast, pinked, bound?

9. How are seams made in lace or net? In velvet?

10. Practical demonstration and lesson assignment.

LESSON III.

ORNAMENTAL STITCHES.

1. Describe the making of a buttonhole. Is the stitch made in the same manner as the buttonhole stitch of embroidery?

2. What is blanket stitch? Outline stitch?

3. How is feather stitch made? Herringbone stitch? Cross stitch? Outline stitch?

4. How are french knots made? Seed stitch? Lazy daisy? How is a punched eyelet made? A cut eyelet? Describe pleasing ways of combining some of these stitches to make trimming for children's dresses.

5. How is hemstitching made? For what is it used?

6. How is braiding done? Applique? How may these be used for dress trimming?

7. In what way may bias bands be used as dress trimming? Piping? Applied hems and skirt yokes?

8. Discuss the use of shirring, plaiting and tucking as trimming for wearing apparel..

9. How should hooks and eyes be sewed on? How should buttons be sewed to very thin material? To very heavy material?

10. Practical demonstration and lesson assignment.

LESSON IV.

PATTERNS.

1. The width of the material purchased should be regulated by the style of pattern to be used.

2. Name some popular makes of paper patterns. How should a person be measured to ascertain the size of pattern required?

3. Explain some of the symbols used on paper patterns. Directions should always be read carefully and a proper interpretation made of them.

4. When and how should patterns be altered? Lengthened, shortened, made wider or narrower?

5. Discuss the matter of placing patterns on material so as to cut to the greatest advantage.

6. Basting. When should the different basting threads be used? How are bias and straight edges basted?

7. How are garments fitted?

8. Finishing.

9. Discuss the matter of re-modelling clothes.

10. Practical demonstration and lesson assignment.

LESSON V.

TEXTILE FABRICS.

1. Make a careful study of cotton in its relation to textiles.

2. Make a similar study in regard to linen.

3. In the same way study wool.

4. Also study the use of silk.

5. What other vegetable or animal fibers are used in the manufacture of textiles?

6. How are tests made for fibers? For fading, for shrinkage, for spotting, for stiffening and glazing?

7. How are fabrics dyed? How adulterated? Why should material for sheets, pillow cases, etc., be torn instead of cut?

8. Make a list of the most useful fabrics, giving width, customary price, use, composition and description.

9. What consideration should be made of the following when buying fabrics or cutting articles from them: Selvage, figures, stripes, plaids, checks, nap, right and wrong side?

10. Practical demonstration and lesson assignment.

LESSON VI.

THE SEWING MACHINE.

1. Name and describe the principal parts of a sewing machine. What is the difference between a single thread and a double thread machine?

2. How should a sewing machine be cared for? How should it be cleaned and oiled? How often should this be done?

3. Describe the principal adjustments, tell how they are adjusted and how used.

4. Define the following: shuttle, tread, feed belt, presser foot, bobbin, stitch control. Discuss needles and thread as related to one another.

5. How are wide hemming and tucking done on a sewing machine? Quilting, felling, binding, puffing?

6. Discuss the aesthetics of dress. The economy of dress.

7. Give the history of costumes, ancient, mediaeval and modern.

8. The designing of clothes; individuality. The importance of artistic dress. Requirements of dress. Color harmony. Line harmony.

9. Discuss the hygiene of dress. Shoes, hats, corsets, underwear.

10. Practical demonstration and lesson assignment.

LESSON VII.

THE CLEANSING OF FABRICS.

1. How should soiled clothes be separated to prepare for laundering? What should be the care of the clothes hamper?

1. Discuss fully the equipment required for successful laundering. What is the difference between "hard" and "soft" water? How may water be softened?

3. What sort of soap should be used for cotton goods? for woolen? When should suds only be used? How are laces washed? Flannels?

4. Describe fully the process of washing, of rinsing, of boiling, of blueing, of starching and of hanging clothes.

5. Describe the ironing of plain and of starched clothes, folding, and drying them. Speak of the necessity of mending them before they are put away.

6. Discuss laundry appliances, clothes washers, clothes wringers, electric irons, dryers.

7. How should clothes be cared for between seasons? Discuss the pressing of clothes. How are silks and velvets renovated?

8. Discuss the use of gasoline as a cleaning fluid. French chalk, magnesia and other combinations for dry cleaning.

9. How should colored clothes be cared for before laundering? How are ink, grass, blood, rust, coffee, oil, and fruit stains removed?

10. Practical demonstration and lesson assignment.

LESSON VIII.

HOUSE-KEEPING.

1. Draw a plan of an ideal home. Make notes of color schemes, wall covering, furnishing, hangings, pictures.

2. Describe fully the process of sweeping and dusting, of mopping and waxing floors, of oiling furniture.

3. How should windows and woodwork be cleaned? What is a vacuum cleaner?

4. How should a bed be furnished? How made up?

5. Discuss economical ways of heating. The proper ventilation of a home. Sanitary plumbing.

6. How should disinfecting be done?

7. How should a linen closet be equipped? How cared for?

8. How should winter clothes be cared for when laid away during the warm months?

9. How may moths be eradicated? How may flies and mosquitoes be kept out of the house?

10. Make a schedule of a housewife's work for a week.

LESSON IX.

SEWING IN THE LOWER GRADES.

1. Discuss this matter fully.

2. Prepare a working outline of a year's work, including such things as weaving paper mats, sewing cards, knitting on spools, weaving worsted rugs, sewing rags for rag rugs, knotting twine, crocheting simple chain stitch.

3. How may little folks be taught neatness and precision without injury to the eyes or the nerves? At this period of life, only the larger muscles of the body should be brought into use. Permanent injury may be done by placing too great a strain on the finer nerves and muscles.

4. What kind of elementary hand work may be taught as a preparation for sewing?

5. Discuss the benefits to be derived from paper folding, cutting, tearing, pasting, original designs.

6. How much cardboard construction may be taught in these grades?

7. Raffia and reed weaving.

8. Practical demonstration of constructive work.

LESSON X.

SEWING IN INTERMEDIATE GRADES.

1. Discuss the teaching of sewing in the intermediate grades.

2. Prepare a working outline of a year's work, considering such things as: a sampler of simple stitches, bedding for a doll's bed, doll's clothes, work bag, apron, dust cap, dust cloth, dish towel, broom bag, laundry bag.

3. This work may be co-related with elementary hand work in such matters as cutting, measuring, folding hems, drawing threads in coarse canvas, tracing patterns and designs for simple embroidery, pricking patterns for stamping.

4. How may originality and individuality be developed?

5. Raffia weaving and elementary basket work. Discuss fully.

6. Intermediate work in cardboard construction. Discuss fully.

7. Stenciling, brass, iron, leather work, designing, lettering.

8. Let the teacher bring examples of elementary constructive work to the class and discuss their manufacture.

10. Lesson assignment.

LESSON XI.

SEWING IN THE HIGHER GRADES.

1. Prepare a working outline for a year's work in these grades, considering the following: household linens such as hemming table cloths, napkins, towels, making dresser scarf, stand cover, sofa pillow cover, sheets, pillow cases; lingerie, such as corset cover, night gown, combination suit, petticoat, house dress, shirt waist, commencement dress.

2. How should lace insertion be set into fine white material?

3. Speak of methods of finishing lingerie, seams, fastenings, beading, trimming.

LESSON XII.

FANCY WORK.

1. To what extent should fancy work be taught in the public schools?

2. Is there danger of pupils overdoing this branch of handiwork?

3. Discuss the teaching of advanced constructive work, bookbinding, leather tooling, basketry, clay modeling, lettering pyrography, brass work, jewelry making.

4. Hold an exhibit of handiwork.

SUGGESTIONS TO INSTITUTE WORKERS

We would emphasize the fact that the courses in the Manual are to be followed closely. Some institute workers are inclined to TALK TOO MUCH. They fail to realize that the institute is a model school, and that the best instructor is the one who uses only a few words in getting the class members to make full recitations. Careful preparation should be made daily by the instructor or conductor, clear lesson assignments should be made, every member of the class should be required to present his work in good form, the art of questioning should be given close attention; in fact, the daily class work should be such as is found in the critic departments of a normal school. The questions given in the examinations held at the close of the institute are to be based on the outlines of the Manual, and the instructor cannot afford to sacrifice any time from the daily program all of which is to be given to the outlines presented.

Note the following:

Assign permanent seats.
Prepare a daily register.
Insist upon punctuality and regular attendance.
Make the opening and general exercises interesting.
Sing often.
Adhere to good form in class movements.
Study the framing of your questions.
Secure well formed answers.
Hold each class member responsible for each lesson assigned.
Have all blanks for information promptly and properly filled.
If you must put off some question until tomorrow, be sure to bring it up.
Don't "lecture" except at some evening meeting or after hours.
Give the full time of the daily program to the work of the outline.
In all third grade classes, give special attention to subject matter, but emphasize method in reading (combination of word, sentence and phonetic.) Discourage the use of the alphabet method.

At the close of the institute, reorganize the County Educational Association, and set the date for the first meeting. See that a wise program committee is selected.

INSTITUTE DAILY PROGRAMS (Suggestive)

Four Weeks' Institute.

ONE INSTRUCTOR.

8:00— 9:00	Arithmetic.
9:00— 9:45	Grammar.
9:45—10:30	Geography.
10:30—10:45	Recess.
10:45—11:30	School Management, or Study Period and Individual Help.
11:30—12:00	Spelling and Penmanship.
12:00 1:15	Noon.
1:15— 2:00	Physiology.
2:00— 2:30	Agriculture, Domestic Science, Manual Training, Drawing, Music.
2:30— 3:15	Reading. Special work in increasing vocabulary.
3:15— 4:00	Special help for next day.

N. B.—The four weeks' institute is in reality a summer school, and every possible help should be given the applicants. Conduct a model school. By example, teach school management, lesson assignments, how to study best recitation methods, etc. Devote three days each week to Agriculture, Domestic Science and Manual Training, and two days to Music and Drawing.

Two Weeks' Institute.

ONE INSTRUCTOR.

NOTE.—All teachers together in all classes. Third grade applicants should attend classes in History, Pedagogy, Psychology, etc., with first and second grade teachers.

Teachers are accustomed to the two-session plan and will ordinarily do better work than when required to begin work at seven o'clock in the forenoon and continue till nearly one o'clock. For this reason the divided session is suggested. Of course, if teachers and conductors prefer the one-session plan, they may adopt it.

FORENOON.

8:15— 8:30	General Exercises.
8:30— 9:00	Arithmetic.
9:00— 9:30	Grammar.
9:30—10:00	Geography.
10:00—10:15	Optional Subject, or Recess.
10:15—10:45	Reading.
10:45—11:15	Physiology.
11:15—11:45	History and Civics, including History and Civics of New Mexico.

AFTERNOON.

1:15— 1:45	Pedagogy and School Management.
1:45— 2:15	Spelling and Penmanship.
2:15— 2:45	Psychology.
2:45— 3:15	Agriculture, Domestic Science, Manual Training. Music and Drawing.

Two Weeks' Institute.

TWO INSTRUCTORS.

NOTE.—First and second grade applicants together. Third grade applicants by themselves, but they should attend afternoon classes for obvious reasons.

	Instructor A	Instructor B
8:00— 8:40	Arithmetic (1st and 2nd)	Arithmetic (3rd)
8:40— 9:20	Grammar (1st and 2nd)	Grammar (3rd)
9:20—10:00	Geography (1st and 2nd)	Geography (3rd)
10:00—10:15	Special Subject or Recess.	
10:15—10:55	Reading (1st and 2nd)	Reading (3rd)
10:55—11:25	Spelling and Penmanship (1st and 2nd)	Spelling and Penmanship (3rd)
11:25—12:00	Physiology (1st and 2nd)	Physiology (3rd)

AFTERNOON.

1:15— 1:30	General Exercises.	
1:30— 2:10	History.	
2:10— 2:50	Pedagogy	School Management
2:50— 3:30		Psychology
3:30— 4:10	Agriculture, Domestic Science, Manual Training, Music and Drawing.	
4:10— 4:30		Civics

N. B.—Of course, an exchange of subjects may be advisable in many cases on account of special preparation of one of the instructors, in certain branches.

CERTIFICATION OF TEACHERS

A Person May Become Legally Qualified to Teach in New Mexico as follows:

I. By securing an elementary first, second or third grade certificate in any one of the following ways:

(*a*) By examination before the county superintendent at the close of the summer institute, or at other times fixed by the State Board of Education.

(*b*) By presenting to the State Board of Education satisfactory credits from State Educational Institutions in those branches prescribed for the elementary certificates.

(*c*) By securing endorsement by the State Board of Education of unexpired certificates granted in certain of the other states. This applies to certificates equivalent, at least, to our elementary first grade certificate. Certificates of first grade or better from Nebraska, Kansas, Oklahoma, Wyoming, Minnesota, Michigan, Missouri, Wisconsin and Washington may be recognized. Applicants with certificates from states not in this list must stand examination or submit credits from schools attended.

(*d*) By completing specified courses in specified schools. (At present there is no list of accredited schools except that graduates of the California State Normal schools may be granted first grade elementary certificates.)

(*e*) By graduating from the full course at St. Michael's College.

(*f*) (Certificates can be granted on credits only when credits offered are equivalent to good four-year high school course and when credits include physiology, pedagogy, psychology, U. S. history, U. S. civics, New Mexico history and civics, and one of the industrial branches.)

II. By securing professional certificates (three year, five year, or life) from the State Board of Education in one of the following ways:

(*a*) By satisfactory examination before the State Board of Education in subjects hereinafter named.

(*b*) By securing the endorsement by the State Board of Education of certificates granted in certain states, provided conditions in prescribed subjects are met. (See (*c*) under I.)

(*c*) By presenting to the State Board of Education satisfactory credits from approved educational institutions in the United States. The good standing of such institutions, if unknown, shall be certified by the superintendent of public instruction or president of state university of state in which institution is located. Application blanks and blanks for transcript of credits will be sent upon request. Transcripts must be certified by authorized persons in school attended.

III. By securing a permit to teach from the county superintendent or the Superintendent of Public Instruction. These are issued to meet emergencies only and expire on the date of the next regular examination of teachers. They may not be issued to persons who failed at the preceding examinations.

IV. By meeting the requirements specified by city boards of education. Each incorporated city is a law unto itself in the matter of certificating its teachers, but certificates issued by a city board are legal only in the city where issued. Teachers in high schools, and teachers of special branches, such as art and music, obtain their certificates as other city teachers do.

All certificates must be secured from the State Department of Education, Santa Fe, New Mexico, except that the boards of education of the incorporated cities of Albuquerque, Clovis, E. Las Vegas, Raton, Roswell, Santa Fe and Tucumcari may, if they wish, issue certificates good in their respective cities.

(NOTE: Certificates can not be issued on diplomas alone.)

In addition to the foregoing, it is necessary, in order that one draw public money for services as teacher, to present a certificate of attendance upon the annual institute or an approved summer school or to present an accepted excuse for non-attendance. Satisfactory institute attendance consists of full ten days, at least four subjects each day, with work approved by the institute conductor and the county superintendent. Holders of elementary first grade or higher certificates who attend a summer session of eight weeks at either of the State Normal schools may be excused from institute attendance the succeeding year. Holders of life certificates must attend an institute at least once in every three year period beginning with 1914. A health certificate, showing that the applicant is free from tuberculosis, is also required. No certificate will be issued or delivered to a non-resident. All certificates will be dated September first. The minimum age for

teachers is (18) eighteen years. For any elementary certificate a fee of ($1.00) one dollar is required unless applicant has paid an examination fee of $1.00 during the year. Fees for professional certificates are required as indicated.

ELEMENTARY CERTIFICATES

Candidates for third grade certificates shall be examined in the following branches: Reading, Penmanship, Orthography, Geography, English Grammar and Composition, Arithmetic and Physiology. Third grade certificates are recognized for one year in any county in the state, and are granted on lower percentages (average 60; minimum 50) than are required for second grade certificates. After the first third grade certificate, applicants for such certificate must do the Reading Circle work required for third grade certificate teachers. (See page 202.) A fee of one dollar ($1.00) is required of each applicant in an examination for a third grade certificate.

Candidates for second grade certificates shall be examined in the following branches: Reading, Penmanship, Orthography, English Grammar and Composition, Geography, Arithmetic, Physiology, United States History, Civics, New Mexico History and Civics, Elementary Course in Teaching and School Management, and one of the following: Agriculture, Domestic Science (including cooking and sewing), Manual Training. An applicant to be entitled to a second grade certificate must obtain a general average as high as 75 per cent, with no grade in any one branch lower than 50 per cent. Second grade certificates are recognized for two years in any county in the state. Standings of 90 per cent or more in subjects on an unexpired second grade certificate may be accepted in granting a first grade certificate.

The law fixes a maximum salary for holders of permits and third grade certificates at fifty dollars; for holders of second grade, seventy-five dollars.

Candidates for a first grade certificate shall be examined in Reading, Penmanship, Orthography, English Grammar and Composition, Geography, Arithmetic, Physiology, United States History, Civil Government, New Mexico History and Civics, the Elements of Pedagogy—comprising a knowledge of School Management and Theory and Practice of Teaching; Elementary Applied Psychology, one of the following branches: Elementary Algebra,

Elementary Botany, Elementary Zoology, Elementary Physics, or Elementary Bookkeeping; and one of the following: Agriculture, Domestic Science (including cooking and sewing), Manual Training. A commercial subject may be accepted in lieu of industrial subject for a first grade certificate to be used in a commercial school. To entitle the applicant to said first grade certificate he must receive a general average as high as 90 per cent, with no grade in any one branch lower than 75 per cent. These certificates are recognized for three years throughout the state, and at the discretion of the county superintendent and upon approval by the State Superintendent of Public Instruction, may be renewed once, if presented before the date of expiration, and provided the applicant has met the Reading Circle requirements. (See page 202.)

Candidates for the first and second grade certificates shall be examined upon the same sets of questions in so far as the subjects are the same. A fee of one dollar ($1.00) is required of each applicant in a second or first grade examination.

Elementary and professional certificates of other states of a standard equivalent to that prescribed for a certificate issued by this Board not lower than an elementary first grade, may be endorsed by the Superintendent of Public Instruction as an elementary first grade certificate, limited to one year (See (*f*) under I, however), provided that the applicant shows satisfactory credit or examination grades in U. S. History, U. S. Civics, New Mexico History and Civics, Physiology, one of the industrial subjects. Pedagogy and Psychology. Such one year certificates may be extended two years by the State Superintendent of Public Instruction upon receipt of satisfactory evidence of one year's successful teaching, and may be renewed in the same manner as elementary first grade certificates secured on examination.

Students who complete the Rural School Departments in the State Normal Schools or graduates from the Eighth Grades in State Normal Schools who meet the same requirements as students who complete the work of the Rural School Departments may be granted second grade elementary certificates.

Credits from educational institutions may be honored in building for a professional certificate or for a first grade elementary certificate, but not for second and third grade certificates.

A fee of $1.00 is required for elementary first grade certificates issued on certificates from other states or on credits or for extension or renewal of elementary first grade certificates.

PROFESSIONAL CERTIFICATES.

In the administration of the law concerning the granting of professional certificates, the State Board of Education makes its own rules. The following are the present rules:

Three grades of professional certificates are granted: One for three years, one for five years, and one for life. All credits offered must be of high school or higher standard. A fee of one dollar ($1.00) is charged the applicant for each examination; several subjects may be taken consecutively at each examination.

A professional three year certificate may be granted to a candidate presenting any five credits (a credit shall consist of five forty-five minute recitations a week for a period of thirty-six weeks, or its equivalent), named in Group II following, and all credits named in Group I, except "Observation (½), Practice (1)."

After three years of successful experience, the holder of a professional three year certificate may be granted a professional five-year certificate.

A person who has all the credits in Group I, following, and any five credits selected from Group II, shall be considered as having the legal qualifications for a professional five-year certificate.

Five-year certificates which are not extensions of three-year professional certificates may be renewed for three years,

Twenty-seven school months of four weeks each of successful teaching will be accepted in lieu of the half year of observation and the one year of practice teaching specified in Group I.

Equivalents of like kind will be accepted for any subject in either group except the subjects in italics.

On presentation of four credits in addition to those upon which the five-year certificates are granted, approved by the State Board of Education, a holder of a professional five-year certificate, after five years of successful experience, may be granted a professional life certificate.

A fee of three dollars ($3.00) is charged for the three-year certificate, five dollars ($5.00) for five-year certificate, and ten dollars ($10.00) for the life certificate.

Do not remit until after having received notice of favorable action on your application.

GROUP I.

Arithmetic Review (½), Geometry, Plane or Plane and Solid (1), Zoology (½), Algebra (1), *English Grammar Review* (½), Composition and Rhetoric (1), History of English Literature and English and American Classics (2), *United States History, including New Mexico History* (½), *Civics, including New Mexico Civics,* (½), General History (1), *Physiology and Hygiene* (½), Botany (½), Physical Geography (½), *Industrial Subject* (*Agriculture, Manual Training, Domestic Science, Commercial Branch* (½), *Psychology* (1), *History of Education, including a General Knowledge of the following school systems*: *the German, the French, the United States, and the New Mexico* (½), *School Management* (½), *Principles of Education* (½), *Special Methods in Reading, Geography, Language, Spelling and Primary Arithmetic* (1),. Observation (½), Practice (1). Practice teaching should be construed to mean actual teaching in an elementary school under the supervision of a critic teacher. If New Mexico History and Civics are not included in United States History and Civics, applicants must present New Mexico History and Civics (½). All professional subjects must be of college rank.

GROUP II.

Latin (2), (3), or (4), Spanish (2), Greek (2), German (2), Trigonometry (½), Sociology (½), Ethics (½), Geology (½), Astronomy (½), Commercial Law (½), English History (½), Chemistry (1), Bookkeeping (½), Physics (1), Calculus (½), Electives.

The sum of credits in the professional studies for a state professional certificate shall not be less than five (5) units, distributed respectively as follows: Psychology 1 unit, History of Education ½ unit, School Management and Supervision ½ unit, Principles of Education ½ unit, Special Methods 1 unit, Observation and Practice 1½ units. (Twenty-seven months' successful teaching shall be accepted in lieu of Observation and Practice, 1½ units.) No credit shall be counted in Psychology for less than 18 weeks. In other professional subjects no credit shall be accepted for less than 12 weeks. When the total credits in professional subjects do not equal 5 units, the Board of Education reserves the right to designate in what particular subject or subjects the candidate shall make his or her additional credits in order to meet these requirements. Substitutions for any subject

must be of like kind: Mathematics for Mathematics, History for History, Science for Science, but there shall be no substitution for Arithmetic Review ½ unit, Grammar Review ½ unit, English 3 units, Physiology and Hygiene ½ unit, Civics ½ unit, United States History ½ unit, New Mexico History and Civics ½ unit, industrial subject ½ unit.

The minimum educational requirements for teachers in a high school shall be graduation from the New Mexico Normal School or from the Normal University or the completion of work equivalent to that required for graduation from these schools. This requirement may be waived temporarily by the State Superintendent of Public Instruction in cases where teachers have manifest qualifications for the position.

Credits not to exceed 1½ units for work done in New Mexico Normal Summer Schools shall be accepted for professional certificates with the same value as is given to such credit toward graduation in said institutions; provided said credits shall be earned by an attendance of not less than eight consecutive weeks. The State Board of Education may allow credit for additional subjects.

Graduates of the University of New Mexico having 120 hours to their credit, including 30 hours in Psychology and Education, shall after 27 months of experience receive a five-year professional certificate, provided they have had all subjects required by law.

Satisfactory standings in not to exceed four subjects from the State Normal Summer Sochols may be accepted for any grade of elementary certificate, provided such standings are secured as a result of pursuing a course for at least eight weeks in each subject.

Elementary first grade certificates when granted on credits from educational institutions shall be granted for one year only, except when application is accompanied by satisfactory evidence of one year of successful teaching. When application is accompanied by such evidence, such first grade certificates for three years, renewable, may be granted on credits by the State Board of Education. One year elementary first grade certificates granted on cedits may be extended two years and renewed in the same manner as such first grade certificates granted on examination.

Credits will be allowed for correspondence work done with educational institutions in the state, but for elementary certificates such credits are limited to three units or their equivalent.

Grades secured from the Normal Summer Schools can be used only once on the same grade of certificate of third or second grade elementary rank.

Business College Certificate may be granted on same subjects and percentages as elementary first grade certificate, and in addition all branches found in any one of the full courses of a standard business college. The fee for such a certificate is $1.00.

Elementary first grade certificates for one year may be issued upon credits when the applicant shows the completion of a good four-year high school course or its equivalent covering at least 15 units, one unit being a subject pursued 36 weeks, five 40-minute recitations per week or 32 weeks, five 45-minute recitations per week, including Physiology, U. S. History and Civics, New Mexico History and Civics, and Industrial Subject (Agriculture, Domestic Science, Manual Training), Pedagogy and Psychology. When applicants offer satisfactory credits in first grade certificate subjects after pursuing these subjects for at least eighteen weeks in advance of the eighth grade, the department may accept their grades made in these subjects in educational institutions, to be combined with grades made in other objects required for first grade certificates in the regular examination. It is permitted to substitute Physical Geography for Geography, Elocution for Reading and Commercial Arithmetic for Arithmetic.

One or two points may be added to the general average in an examination for elementary certificates for satisfactory examinations in one or two industrial subjects, but no such credit shall be given for the industrial subject offered as the required branch.

READING CIRCLE WORK.

The following are the books required in the New Mexico Teachers' Reading Circle course for the school year 1915-16:

I. *For teachers with first grade elementary or professional certificates*:

(*a*) "Sociology and Modern Social Problems," price $1.00. American Book Company, Chicago.

(*b*) "The Rural School—Its Methods and Management," price $1.00. Silver Burdette & Co., Chicago.

II. *For teachers with second and third grade elementary certificates*:

(*a*) "Everyday Pedagogy," price $1.00. Ginn and Company, Chicago.

(*b*) "Rural Life and the Rural School," price 80 cts. American Book Company, Chicago.

Any or all of these books may be secured from Chas. Ilfeld Company, Albuquerque, N. M., at price stated above. This company will have these books on hand at all times and teachers should secure such as they need at once, so that it will be possible to be thoroughly prepared before another institute and examination season.

It should be borne in mind that teachers holding first grade certificates are required to read the books prescribed for such teachers for three years covered by their certificates before they can secure renewals. Teachers holding third grade certificates must read the books prescribed for second grade and third grade certificate teachers or they cannot secure another third grade certificate. For all teachers, one point will be added to the general average for each book read, not exceeding two points, in any examination.

Reading Circle work may be secured only by taking examinations on books of the course and having papers graded under the same conditions as examinations are held and papers graded for teachers' certificates, 50 per cent being required for third grade teachers, 60 per cent for second grade, and 75 per cent for higher grade certificates. Teachers giving evidence of professional study in any year satisfactory to the State Superintendent, may be excused from the Reading Circle requirements for that year.

Write for complete statement concerning Reading Circle work to Rupert F. Asplund, Secretary, Santa Fe, N. M.

RULES FOR CONDUCTING COUNTY EXAMINATIONS

1. Examinations shall be held on Friday and Saturday, at the close of the institute, June 16 and 17, June 30 and July 1, July 14 and 15, and July 28 and 29, and on some date in the fall to be fixed by the State Board of Education. Each applicant before beginning to write on the subjects, in which examinations are held upon dates fixed by the State Board of Education, shall pay One Dollar to the County Superintendent or to the Supervisor of the Examination, regardless of the number of subjects taken. Applicant should secure receipt for the fee paid.

2. Promptly at the time set in the program for the beginning of the examination in each subject, the County Superintendent shall announce the subject of examinations and the time to be devoted to it. Thereupon he shall open the proper sealed package of questions and distribute one list to each person to be examined.

3. Promptly at the close of the time allowed to the examination in any subject, the County Superintendent shall collect all papers and immediately seal them preparatory to mailing as directed by the Superintendent of Public Instruction. If no instructions are sent, the County Superintendent will send them to the State Department of Education, Santa Fe.

4. During the examination the candidates shall be seated as far apart as possible and they shall not be allowed to communicate with each other; furthermore, there shall be no comment or explanation by any one as to the meaning of the questions.

5. After having begun to write on a list of questions the examinee must finish the list before intermission or before taking up another list.

6. At the head of each list the maximum of time to be allowed to each subject appears, and in no case shall additional time be allowed.

7. The County Superintendent shall furnish each examinee at the opening of the examination with a copy of these rules which must be followed implicitly.

EXAMINATION PROGRAM. (*Suggestive*)

Friday—		
7:30— 9:00	Arithmetic	All Grades
9:00—10:15	Geography	All Grades
10:15—11:30	Physiology	All Grades
11:30—12:15	Orthography	All Grades
12:15— 1:30	Noon.	
1:30— 2:00	Penmanship	All Grades
2:00— 3:30	Grammar	All Grades
3:30— 4:30	Reading	All Grades
Saturday—		
7:30— 8:45	U. S. History	First and Second Grades
8:45—10:15	School Management and Pedagogy	First and Second Grades
11:30—12:15	History and Civics of New Mexico	
12:15— 1:00	Noon	
1:00— 2:30	Industrial Branch	First and Second Grades
1:30— 4:00	Psychology	First Grade
4:00— 5:30	Optional Subject	First Grade

Reading Circle examinations may be held on Thursday afternoon or at some other suitable time.

RULINGS CONCERNING EXAMINATION PRIVILEGES.

1. The holder of an unexpired second grade certificate may build for a county first grade certificate by taking examinations in subjects recorded on the county second grade certificates in which the standings are lower than ninety per cent. (School Management not considered.) These examinations need not all be taken at one time. The examinee is privileged to write a portion of the required subjects at any one of several examinations held during the life of the second grade certificate.

(In the last examination when requirements are to be completed for first grade certificate, applicant should take examination in all subjects required for second grade certificate; otherwise if he should fail to make the necessary average and minimum for first grade certificate, he may be left without any certificate.)

2. A teacher attending the county institute and taking the examination and failing, may take the examination in October and have the best grades combined. A teacher wishing to attend any other examination and having grades combined must attend

the full ten days' institute in each county where examination is taken; provided that any person may attend any or all examinations during one institute period including the October examination and may have all grades made, equalling the average or over of the certificate for which he applied.

No grades may be carried from one institute season to another or from the midwinter examinations, except 90's in building for a first grade certificate.

3. Applicants who write for second grade certificates but fail to secure same because of low standings in certain subjects, may be allowed the privilege of rewriting in those subjects in which the standings are lower than seventy-five per cent; and provided, further, that the rewriting take place during the institute season, June to September. No grades may be carried forward from the winter examination.

4. Applicants for third grade certificates failing to secure such certificates because of low standings shall be required to rewrite on all subjects required for such license.

6. Not to exceed two points may be added to the general average for any grade of certificate for Reading Circle work and the same credit may be given for satisfactory examinations in industrial branches, but when a grade in one industrial subject is offered for an optional subject for a first grade certificate, no credit shall be given for that subject on the general average.

7. The optional subjects are: (1) Algebra, Botany, Zoology, Bookkeeping, Physics; (2) Manual Training, Domestic Science and Agriculture. One subject is required in each group for first grade certificate. One subject in Group 2 is required for second grade certificate.

INSTRUCTIONS TO EXAMINEE.

1. Applicants writing for certificates should write name and postoffice address as well as name of subject and grade of certificate sought on the first page of each paper.

2. Writer's name and name of subject should appear on each separate sheet used to avoid possibility of loss.

3. Pages should be numbered consecutively. Questions may be answered in any order, but each answer should be numbered as the corresponding question.

4. If double sheets of paper are used it will be more convenient for the reader if such sheets are cut in two.

5. Write on only one side of the sheet. Use pencil or pen and ink.

6. Use paper of uniform size, preferably legal cap, or foolscap.

SPECIAL NOTICE.

7. (*a*) On all your work in this examination, do not attempt to answer any more questions than may be required on each subject. Extras will not be graded.

(*b*) If you desire that your papers be given the full value which they may indicate, it is absolutely necessary that you sit far enough away from any other applicant to prevent copying, or the securing of information from your papers. PROTECT YOUR PAPERS OR STAND THE CONSEQUENCES. If you need more room ask the County Superintendent or Examiner for it.

(*c*) Turn over each sheet as soon as you finish it.

(*d*) Permit no one to talk to you. Permit no one to see your papers.

(*e*) The Examiner should send from the room an applicant who engages in any unfairness.

INSTRUCTIONS FOR PACKING PAPERS.

1. Place papers written on each subject together, being careful to keep third grade papers separate from first and second grade subjects. Pack all papers flat.

2. Do not place any other papers in package with answers to examination questions.

3. Please forward all other papers of whatever kind to the office of the Superintendent of Public Instruction, Santa Fe, New Mexico.

READING CIRCLE REQUIREMENTS.

1. No teacher who holds a third grade certificate can secure another third grade certificate without having read the books prescribed for holders of third grade certificates.

2. No holder of a first grade certificate can secure a renewal without having read the books prescribed for first and second grade teachers for the three years previous to renewal.

3. One per cent for each book read will be added to the general average secured by any teacher in her next examination for teacher's certificate, not to exceed two per cent.

Those teachers who are required to do the Reading Circle work and those desiring credit for such work must take examination on Reading Circle books under same conditions as in regular examination for teacher's certificates. No fee is required for examinations on Reading Circle books.

ADOPTED TEXT BOOKS

The following list indicates the text books that have been adopted for use in the first eight grades of the public schools for New Mexico during the six-year period beginning June 15, 1915.

	Retail Price	Exchange Price
LANGUAGE AND GRAMMAR—		
**Arnold's With Pencil and Pen (G)	.27	
Reed's Introductory Language Work (CEM)	.40	.20
Scott-Southworth's Lessons in English,		
Book I (BHS)	.34	.17
Book II (BHS)	.48	.24
PHYSIOLOGY—		
Davison's Health Lessons—		
Book I (ABC)	.35	.19
Book II (ABC)	.60	.33
DOMESTIC SCIENCE—		
Morris' Household Science and Arts (ABC)	.65	
PENMANSHIP—		
Zaner Method Writing Practice Books,		
Nos. 1 to 8 (ZB)	.06	
Zaner Method Writing Compendiums.		
Nos. 1 to 8 (ZB)	.05	
Zaner Method Writing Manuals,		
free to teachers (ZB)		
DRAWING—		
Graphic Drawing Books—		
Nos. 1 to 4 (P)	.13	
Nos. 5 to 8 (P)	.18	
GEOGRAPHY—		
Tarr-McMurry's New Geography—		
First Book (M)	.65	.39
Second Book (M)	1.10	.66
ARITHMETIC—		
*Van Amburgh's First Days in Numbers (SB)	.25	
Wentworth-Smith's—		
New Elementary Arithmetic (G)	.35	.21
Complete Arithmetic (G)	.60	.36

	Retail Price	Exchange Price
READING—		
The Riverside Primer (HM)	.30	.15
*Free and Treadwell's Reading-Literature, Primer (RP)	.30	
*The Blodgett Primer (G)	.25	
*White and Fillmore's The Story Reader Primer (WBC)	.30	
*The Wooster Primer (W)	.25	
Brooks's Readers—		
First Year (ABC)	.25	
Second Year (ABC)	.35	
Third Year (ABC)	.40	
Fourth Year (ABC)	.40	
Fifth Year (ABC)	.40	
*Evans and Duncan's Farm Life Readers—		
Book Four (SB)	.40	
Book Five (SB)	.45	
Searson and Martin's Studies in Reading—		
Sixth Grade (U)	.45	.22
Seventh Grade (U)	.50	.25
Eighth Grade (U)	.50	.25
*Free and Treadwell's Reading-Literature—		
First Reader (RP)	.35	.22
Second Reader (RP)	.40	.24
Third Reader (RP)	.45	.27
Fourth Reader (RP)	.50	.30
Fifth Reader (RP)	.55	.33
Sixth Reader (RP)	.60	.36
Seventh Reader (RP)	.60	.36
Eighth Reader (RP)	.60	.36
*Searson and Martin's Studies in Reading, Fifth Grade (U)	.45	
ORTHOGRAPHY—		
Reed's Primary Speller (CEM)	.19	
Reed's Word Lessons (CEM)	.22	
UNITED STATES HISTORY—		
Mace's Primary History (RM)	.60	.39
School History (RM)	.90	.60

	Retail Price	Exchange Price
CIVIL GOVERNMENT—		
Reinsch's Civil Government (BHS)	.70	.35
Robert's History and Civics of New Mexico (CI)	1.00	
AGRICULTURE—		
Burkett, Stevens and Hill's Agriculture for Beginners (G)	.75	
SPANISH—		
**Cyr's Libro Primero de Lectura (G)	.40	
**Mantilla's Libro Segundo (ABC)	.50	
MANUAL TRAINING—		
Fox's Practical Woodwork (F)	.60	
DICTIONARIES—WEBSTER'S—		
Shorter School Dictionary (ABC)	.60	.36
Elementary School Dictionary (ABC)	.90	.54
Secondary School Dictionary (ABC)	1.50	.90
Collegiate Dictionary, Sheep (ABC)	4.00	
Collegiate Dictionary, Cloth (ABC)	3.00	
New International Dictionary, indexed (ABC)	12.00	
To Schools, f. o. b. Albuquerque	10.80	

In addition to the foregoing, school districts desiring to do so may use The Phonetic Method of Teaching Reading, published by Ginn and Company, and O'Shea and Eichman's Composition by Grades, Books 3-8, published by Chas. E. Merrill Company. Attention is also called to the fact that the State Board has recommended the Zaner Spelling Tablets and Writing Materials.

Books adopted for supplementary use are designated by an asterisk (*)

Books from unexpired adoptions by double asterisk (**)

Names of Publishers are designated by initials, as follows:

PUBLISHERS

(ABC) American Book Company, Chicago, Ill.
(BHS) Benjamin H. Sanborn, Chicago, Ill.
(CEM) Charles E. Merrill Company, New York.
(G) Ginn and Company, Chicago, Ill.
(HM) Houghton Mifflin Company, Boston, Mass.
(CI) Charles Ilfeld Company, Albuquerque, N. M.
(M) The Macmillan Company, Dallas, Texas.
(P) The Prang Company, Chicago, Ill.
(RM) Rand-McNally Company, Chicago, Ill.
(RP) Row, Peterson and Company, Chicago, Ill.
(SB) Silver, Burdett and Company, New York.
(U) University Publishing Company, Lincoln, Neb.
(W) Wooster and Company, Chicago, Ill.
(ZB) Zaner and Bloser, Columbus, Ohio.
(WBC) World Book Company, Yonkers, N. Y.
(F) W. Melvin Fox, Belen, N. M.

Address all inquiries concerning text book matters to the State Superintendent of Public Instruction, Santa Fe, N. M.

ALVAN N. WHITE,
State Superintendent of Public Instruction.

or to

CHARLES ILFELD COMPANY,
Albuquerque, N. M.

New Mexico Depository for the Publishers of Adopted Books.

EXCHANGES

GRADE EXCHANGE shall be construed to mean that price which must be paid for a book in addition to the return of an old book of the same grade and subject, which price is the contract exchange price set forth in this contract.

DEMOTIONAL EXCHANGE shall be construed to mean that price which must be paid for a book in addition to the return of an old book of a higher grade on the same subject, which price is the contract exchange price of the new book of lower grade exchanged.

PROMOTIONAL EXCHANGE shall be construed to mean that price which must be paid for a book in addition to the return of an old book of a lower grade on the same subject, in which event the allowance for the old book shall be the same as if exchanged for a book of even grade with the old book.

The Middle West Edition of *Agriculture for Beginners* has been adopted. This edition is the same as the edition in use except that it contains 58 more pages. Teachers may secure, without cost, on application to Charles Ilfeld Company, Albuquerque, N. M., a supplement covering the above 58 pages, for each copy of the edition now in use in their school.

EXCHANGE PERIOD EXPIRES JUNE 15, 1916

The publishers of text books are under bond to deliver to the purchaser any text in the foregoing list at the contract retail price given opposite text. These retail prices are to be stamped in the books.

AGENCIES

BERNALILLO COUNTY—Albuquerque.
CHAVES COUNTY—Roswell, Hagerman, Lake Arthur, Dexter, Kenna.
COLFAX COUNTY—Raton, Dawson, Cimarron, Springer, French, Maxwell.
CURRY COUNTY—Clovis, Melrose, Texico.
DONA ANA COUNTY—Las Cruces, Anthony.
EDDY COUNTY—Artesia, Dayton, Lakewood, Carlsbad, Hope.
GRANT COUNTY—Silver City, Santa Rita, Lordsburg, Hurley.
GUADALUPE COUNTY—Santa Rosa, Vaughn, Ft. Sumner.
LINCOLN COUNTY—Carrizozo, Capitan.
LUNA COUNTY—Deming, Columbus.
MORA COUNTY—Wagon Mound, Watrous, Roy, Mora.
MCKINLEY COUNTY—Gallup.
OTERO COUNTY—Alamogordo, Tularosa, Cloudcroft.
QUAY COUNTY—Tucumcari, Nara Visa.
RIO ARRIBA COUNTY—Espanola, Tierra Amarilla, El Rito, Chama.
ROOSEVELT COUNTY—Portales, Elida, Taiban.
SANDOVAL COUNTY—Bernalillo.
SAN JUAN COUNTY—Aztec, Farmington.
SAN MIGUEL COUNTY—East Las Vegas, Las Vegas.
SANTA FE COUNTY—Santa Fe.

Sierra County—Hillsboro, Elephant Butte.
Socorro County—Socorro, Magdalena, San Marcial, Mogollon.
Taos County—Taos, Questa.
Torrance County—Duran, Estancia, Willard, Mountainair.
Union County—Clayton, Folsom, Des Moines.
Valencia County—Belen, Los Lunas.

CIVICS OF THE UNITED STATES AND NEW MEXICO

FIRST GRADE.

Prepared by Pres. Frank H. H. Roberts, East Las Vegas.

These lessons are taken from the Civics of New Mexico, which will be published early this summer. Those who wish aid or suggestions of material to read in connection with this work may write to the maker of this outline. Hinsdale's American Government is recommended for the national civics.

The first four lessons have been put into parallel form, that teachers may see how nearly alike are the civics of the nation and state.

LESSON I.

1. Define government, civil government, and republic. (Is Albuquerque a republic?) monarchy, democracy. See dictionary for definitions.

2. What are the powers of the city, state, or national government?

3. That the teachers may understand the three powers of government, the following table is taken from Roberts' Civil Government of Wyoming, copyright, 1905.

LEGISLATIVE.	EXECUTIVE.	JUDICIAL.
The following are legislative acts:	These are executive acts:	The judiciary answers the questions:
Levying taxes.	Collecting taxes.	What does the law mean?
Appropriating money.	Taking care of the money and paying it out on order of the legislature.	Does it conform to the constitution?
Declaring war.	Enlisting soldiers and sailors.	Has the law been properly executed by the executive officers?
Determining the duties of the officers of the government.	Equipping and directing the army and navy or militia.	Attainder. (The act of finding guilty and taking away certain civil rights) is a judicial act.
Fixing salaries.	Making internal improvements that have been ordered by the legislative body.	The power exer-
Ordering buildings to be built, soldiers to be enlisted, harbors to be dredged and ships to be constructed.		

The granting of public franchises, and the exercising of the right of eminent domain.	Pardoning.	cised by the Senate in all cases of impeachment is judicial. The Senate exercises the same functions as judge and jury exercise in cases of indictment.
Suspending the writ of Habeas Corpus.	Impeaching.	
	Indicting.	
	Appointing.	
	a. Nominating.	
	b. Confirming.	
	c. Commissioning.	

4. What is the Initiative? Referendum? Are either allowed the voters of New Mexico? Are they modern inventions?

5. What is the difference between a federal and a national government? Why is our government sometimes called federal and sometimes national?

6. What is the meaning and purpose of the preamble of a constitution? Commit the preambles to the constitution of the United States and New Mexico.

7. What is a declaration of rights?

8. The *writ* of *habeas corpus* should be specially studied as it is the very foundation of our liberties.

(It is not "a writ whereby one receives a speedy trial by jury," as is so often taught, but rather a writ whereby one hopes to avoid trial.)

LESSON II.

1. The legislative branch exercises legislative, executive, and judicial powers, but its chief power is legislative.

THE CONGRESS OF THE UNITED STATES.

Legislative Power. The law-making power of the nation is vested in the Congress and the President.

Executive Power. The Senate is given the power to approve or reject the nominations of the President.

The House has the sole power of impeachment. To impeach is to formally accuse one in high office.

Judicial Power. The Senate, sitting as a court, tries all cases of impeachment, and if two-thirds of the members vote to sustain the impeachfent, the

THE LEGISLATURE OF NEW MEXICO.

Legislative Power. The legislative power of the state is vested in the Legislature and the Governor.

Executive Power. The Senate has the power to approve or reject all appointments of the Governor, except to fill vacancy in elective office.

The house has the sole power of impeachment. Impeachment by the House corresponds to indictment in the Courts.

Judicial Power. The Senate has jurisdiction of all cases of impeachment. At the trial of the person impeached the senators are under oath to do jus-

person upon trial is removed from office and may be disqualified from holding any positions of honor or trust in the United States.

The senators take oath as judges, and two-thirds of those present must concur in a verdict or there is no conviction.

When the President is on trial the Chief Justice presides.

Apportionment. Each state has two senators and one representative for each 212,407 persons. Each state whose population is less than the number required for a representative is entitled to one member of the house.

There are ninety-six senators and 435 representatives.

tice, and two-thirds of the members must concur in a verdict or the accused stands acquitted.

The senators take oath as judges and there shall be no conviction unless two-thirds of the members elected to the Senate concur in the verdict.

When the Governor or Lieutenant Governor is on trial the Chief Justice of the state presides.

Apportionment. The Constitutional Convention established 24 senatorial districts, to be represented by 24 senators, and 30 representative districts, to be represented by 49 representatives.

No change can be made in this representation until the first session of the legislature after the announcement of the census of 1920, unless the Constitution is amended.

LESSON III.

1. The executive branch exercises executive, legislative and judicial powers, but its chief power is executive.

The chief executive power is vested in the President.

Qualification. A person must be 35 years of age, a natural born citizen, and must have resided in the United States fourteen years, to be eligible to the office of President.

Term of Office. The President is inaugurated on the 4th of March next succeeding his election, and serves four years, but his term ends on March 4th whether his successor has been chosen or not.

Salary, $75,000 a year.

Executive Powers and Duties. He is commander-in-chief of the army and navy and of the state militia when it is in the service of the United States. He nominates his cabinet, the diplomatic corps, the judges of the

The chief executive power is vested in the Governor.

Qualification. To be eligible to the office of Governor, one must be a citizen of the United States, 30 years of age, an elector of the state and must have been a resident of the state for the five years next preceding his election.

Term of Office. The Governor holds office four years from the first day of January next succeeding his election and until his successor is duly elected and qualified.

Salary, $5,000 a year.

Executive Duties and Powers. He is commander-in-chief of the militia when it is not in the service of the national government. He nominates and appoints by and with the consent of the senate, the administra-

federal courts, and many other executive officers. He has power to grant reprieves and pardons for any offence against the United States, before or after conviction, except in cases of impeachment.

Legislative Powers and Duties. When a bill has passed both houses of Congress it is sent to the President for his consideration. If he approve of the measure he signs the bill, which then becomes a law. But if he does not favor the bill he vetoes it; that is, he returns it without his signature to the house which originated it, together with his objections. Or if he retain the bill more than ten days it becomes a law without his signature. But if Congress should adjourn before the ten days have expired and the President has not signed the bill it fails to become a law. This is called a "pocket veto."

Judicial Duty and Power. When a court-martial has tried an offender against the military or naval law, it is the President's duty to review and approve or disapprove the findings of the court. This is purely a judicial act. After approval he may use executive clemency and pardon the offender, or commute the sentence.

tive boards of the state institutions and fills vacancies in certain offices. He has power to grant reprieves and pardons after conviction for all offenses except treason and except in cases of impeachment.

Legislative Powers and Duties. Every bill that has passed both houses of the Legislature must be presented to the Governor, who may sign it or may return it unsigned with his objections to the same, to the house in which it originated. If, while the Legislature is in session, the Governor retain a bill more than three days, Sundays excepted, it becomes a law whether signed by him or not. If the Legislature adjourn before the three days have expired, the Governor must sign the bill within six days or it cannot become a law.

Judicial Duty and Power. When a member of the militia violates the military laws of the state, he is tried by a court-martial and the Governor must approve or disapprove the findings of the court. As in the case of the President, he may use his executive power after he has exercised his judicial power.

LESSON IV.

1. The judicial branch exercises judicial, legislative and executive powers, but its chief power is judicial. These duties are the same in state and nation.

Judicial Duty. It is the duty of the court to apply the law, to declare it void when it is not in harmony with the constitution, to declare what is the law, and to interpret the law.

Executive Duty. The court is allowed to appoint some of its executive officers, the clerk, court reporter, etc.

Legislative Duty. The accepted theory is, that the courts have no legislative power. But the courts make the body of common law. Define common law.

In discussing the common law, Walker supposes a case presented to the court for which there is no law, either statutory or common, and no case analogous to it can be found, the judge "must either let a wrong go unredressed, or make a law to meet the exigency." This, he declares, is an act of *judicial legislation.*

Jurisdiction. Jurisdiction is the right or power of a court to hear causes and execute justice. The jurisdiction of a court is determined by the constitution or statutes, and extends to persons, places, and causes.

NATION.	STATE.
Supreme Court. The supreme court is composed of a chief justice and eight associate justices, appointed by the Presi dent, to serve during good behavior. The chief justice receives $15,000, and associate justices each $14,500.	**Supreme Court.** Three justices elected by the people constitute the supreme court. The term of office is eight years and the salary $6,000. The judge whose term first expires is chief justice, provided that he has been elected for the full term of eight years.
Circuit Courts of Appeal. The United States is divided into nine circuits. There are twenty-nine circuit judges. A circuit judge receives $7,000. This court has only appellate jurisdiction. The supreme court allots one of the supreme court justices to each circuit. A district judge may act as a circuit judge.	
District Court.. The United States is divided into seventy-five districts and eighty nine district judges have been appointed. Salary of district judge is $6,000.	**District Court.** The state is divided into eight districts and one judge is elected in each district, except the fifth, which has two judges. A district judge is elected for a term of six years; salary, $4,500.

LESSON V.

1. How are counties formed? How many are there in New Mexico?

2. What do you know about Sumner and Aguilar counties?

3. Does the county have a legislative body? Does it have executive and judicial officers? Make a list of each kind.

4. What are the duties of the County Commissioners?

5. What are the duties and salary of the County Superintendent?

6. Who represents your county in the legislature? What salary does he receive?

7. What are the duties of the Justice of the Peace?

8. How is money obtained for the support of schools?

9. By what authority is school money paid out?

LESSON VI.

1. What is suffrage? What is the advantage of universal suffrage? What states have full woman suffrage?

2. What are the qualifications of an elector?

3. What are the duties of a school board? (List them under the head of legislative, executive and judicial.)

4. Write a contract between yourself and some school board.

5. What is your authority in matters of punishment? When does your authority over a child begin and end?

6. Name and locate the state institutions of education. How are they supported?

7. What are the duties and powers of the Superintendent of Public Instruction?

8. What is the State Board of Education? What are its powers and duties? Who are the members?

LESSON VII.

1. How and when is the president elected?

2. Describe a National Convention.

3. What are the powers of the president?

4. Name the members of the president's cabinet and name the state officers that correspond to the cabinet officers.

5. Has the president any law making power? What is a pocket veto?

6. What is a treaty? Who makes treaties?

7. Has the governor of New Mexico any law-making power? Who is he?

8. How can the president, or governor, be punished for failing to do his duty?

9. What is a bill of rights? (Nearly all United States histories have the Constitution of the United States in them. Every teacher should have a copy of the Constitution of New Mexico.)

LESSON VIII.

3. The Declaration of Rights. Read and compare as follows:

United States Constitution.	*State Constitution.*
Amendments	Article II
Article I	with Sections 11 and 12
Articles II and III	with Sections 6 and 7
Article IV	with Section 10
Article V	with Sections 14 and 15
Article VI	with Section 16
Article VII	with Section 12
Article VIII	with Section 13
Articles IX and X	with Sections 2, 3 and 4

LESSON IX.

1. What is a community? Is your school a community? What are some of the things a citizen receives from the community?

2. Do the features of the land determine the location of buildings and of cities?

3. What are some of the things outside of your home that your community does to satisfy its highest desires?

4. How was business carried on in pioneer days?

5. Why do people live in wretched dwellings and in tenement houses?

6. What are aliens? Where do they come from? What is Castle Garden?

7. What is meant by the National Domain?

8. How are cities supplied with water?

9. How is health cared for in the average ranchman's family?

10. Describe the irrigation system.

LESSON X.

1. Describe the early methods of fighting fire and compare them with the modern methods. Tell what you can about fire insurance companies.

2. Discuss the laws necessary to prevent accidents and the evils of lax enforcement of these laws.

3. Of what value are city markets to country people?

4. What power has Congress in ordinary business matters?

5. Discuss the subject, "Waste in Government," particularly in reference to National Government.

6. What was Governor Berkeley's idea of education? What was Thomas Jefferson's? Why should the state pay for the education of children?

7. Of what value is a school garden to a city?

8. Read again Article I, Amendment I, of the United States Constitution and Sections 11 and 17, Article II, of the State Constitution; and discuss the separation between religion and the government.

9. Discuss the relation between state and local government.

10. What was the origin of the township and of the county?

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